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ADDRESSES.

RECENT ADVANCES IN THE TREATMENT OF DISEASES OF THE SKIN.

Read in the Section on Dermatology and Syphilography at the Fortieth Annual Meeting of the American Medical Association held at Newport, R. I., June, 1889.

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CHAIRMAN OF SECTION.

Gentlemen :—In opening the Second Session of the Section of Dermatology and Syphilography of the American Medical Association, I must first express my thanks publicly to the gentlemen who at the last session so kindly called me the second time to preside over your deliberations, an honor which was as unexpected as it was gratifying. I must also congratulate you, and, I believe, the profession at large, upon the interest which the Section has developed, and express the hope that by its means the large and important field of study and practice which is here represented may be simplified, so that diseases of the skin may no longer represent the *terra incognita* which they have sometimes been considered by those inexperienced therein.

As was remarked last year, on opening the session, the Section is organized for work in the line of *practical* dermatology, and as a Section of the American Medical Association it should be attended by members who are not dermatologists, and subjects should be presented which are of general and practical interest and value to the general practitioner if we would seek to give the widest usefulness to our Section.

With this aim in view we have this year, as well as last, prepared a "question box" into which any one may drop a written slip regarding any subject upon which he would like aid or information from those present, or on which may be proposed subjects for future discussion. It is earnestly requested that this method of securing an interchange of ideas be utilized to as great a degree as possible; an hour has been set apart on the second day for answering such questions, and further time can be taken later if necessary; if freely used this plan might be made the means of developing very interesting practical matter which would not otherwise be reached.

The general topics assigned for discussion at this session, namely, "The Treatment of Tinea Tonsurans," and "The Indications for and Duration of the Treatment of Syphilis," are, it is thought, subjects which are of very considerable practical and general interest. While pathological considerations, and those relating to rare and peculiar diseases of the skin may be of a certain advantage here, and may more or less find a place in this Section, it is hoped that more common matters, which shall be of use in general practice, may in the main be presented, while the more abstruse and difficult subjects shall be left for the consideration of those whose attention is wholly or largely given to this branch, in the American Dematological Association.

By the rules of the American Medical Association it is the duty of the Chairmen of the various Sections to give an address upon the advances which have been made in the departments of medicine represented by the Sections, and to bring to their attention such matters as may be considered of interest and profit. In accordance with this rule I beg now to direct your attention for a short time to the subject of "Recent Advances in the Treatment of Diseases of the Skin." Inasmuch as this is the first time that this subject has been presented before the Section, we have no date from which we may reckon the *recent* advances in the treatment of diseases of the skin; I have thought it best, therefore, not to confine our considerations to any specified time, but to look over the field a little broadly, and to take account of stock, as it were, endeavoring to discriminate between the good, bad, and indifferent of the more recent so-called "advances" in this department.

It is a constant remark among those acquainted with the subject, that the need is not so much for new remedies, in dermatology, or indeed in any department of medicine, as it is of a better knowledge of the true value and mode of application of those means of combatting disease which we now possess. While the question is repeatedly put to one occupied in any special branch, "What is the newest or best remedy for this or that complaint," he is obliged just as frequently to reply

that there is no one remedy or plan of treatment which is wholly satisfactory in any particular disease, or which will reach every case; and if, perchance, a suggestion is made of any particular drug or method he feels that the chances are very great that there will be some error or some failure to use the remedy correctly, and that the ultimate result is very doubtful. In no department of medicine is this true to a greater extent than in diseases of the skin, and yet nowhere can we see more brilliant results, the accuracy and truthfulness of which cannot be denied, because plainly visible to all, than in the department of dermatology.

The first advance, therefore, to which I would call attention in the treatment of diseases of the skin is the recognition of the fact on the part of those acquainted with the subject that accuracy of diagnosis is essential to success in the treatment of this class of affections, and intelligence in the application of remedies can alone insure results which are not disappointing. I would feel like apologizing for such an apparently self-evident statement, were it not that a considerable experience in consultations with other physicians has made me think that too little care is often spent in studying this class of cases, and in recognizing all the features requiring attention, both as regards the local affection and the constitutional condition of the patient. If the same care and thought were expended upon certain cases of skin disease which are readily given to obstinate or obscure diseases of other organs there would be less difficulty in their management. The time has passed when a patient afflicted with an affection of the skin should at once be given arsenic internally and zinc ointment externally; and then, in the event of probable failure, that he should be given mercury or iodide of potassium, under the suspicion that perhaps there may be some "taint;" and then in the further event of a failure of these plans, that he should be either left to suffer, or be informed that it would be dangerous to cure the skin trouble lest "the disease might strike in." There is much in the practice of dermatology which the general practitioner may readily grasp and use, if only sufficient care and thought be given, and, in my judgment, as remarked before, there is much less need of new remedies than there is of a careful, proper and widespread knowledge of the means already known, and their intelligent use.

The second point to which I would call your attention is, that while accuracy of diagnosis is the first essential to success, it is almost equally important to consider well and appreciate thoroughly the particular condition or stage of the eruption under consideration, and, knowing the action and effect of each remedy to use it accordingly. The same measure advised for a certain disease will act entirely different under different conditions and at various stages of the complaint, so that one constantly sees harm done from harsh remedies when those of a soothing nature were required, and mild measures are often uselessly employed when those of a stimulating character were demanded. As a corrollary to this we learn that even the new remedies and methods of treatment advanced will often fail of success unless it is known exactly at what stage or condition they were employed and in what manner they acted.

One more general remark may be added and we will pass to consider some of the more recent advances in dermatology. It is this. Not only do remedies and measures act differently in different persons and under diverse conditions, and in different stages of a disease, but their action may be modified, aided or retarded by a number of influences which are not always thought of, such as diet, hygiene, and the effect of other remedies, internal or external. Therefore, in the use of any newly-recommended measure all other proper adjuvants are to be employed and all antagonistic elements are to be removed; and as a corollary to this we learn that new remedies are not always to be judged negatively by an apparent failure, nor, on the other hand, can we always conclude favorably of the effect of any special agent unless all other elements bearing on the case are also duly considered.

With this much of preface we may consider some of the therapeutical elements which have in recent years been introduced into the practice of dermatology. Time will not permit of a full consideration of all that might be mentioned with advantage, much less of the many which have been brought forward whose claims have not been fully substantiated. Indeed much even that might be of interest and value must be left for my successors in office, who will, no doubt, consider and present the subjects with abler pens than mine.

First, among the advances in dermatology during recent years to be mentioned should be the *mechanical therapy* of diseases of the skin, which, when properly employed, aids very greatly in the management of many conditions which had heretofore proved very rebellious; of this there are several forms. The curette is very serviceable in the treatment of lupus, also in removing small epitheliomata, warts and excrescences, and it may sometimes be used with advantage on chronic patches of eczema, also psoriasis.

The cutaneous punch, as introduced by Keyes[1] is also of value in removing small circular portions of skin, the seat of moles and the like, also powder stains, and likewise in taking sections of diseased tissue for microscopic examination.

The cutaneous lance plays an important part in the treatment of acne, and together with the

[1] Keyes, Jour. Cutaneous and Genito-Urinary Diseases, Vol. v, 1887, p. 98.

comedo extractor, will accomplish more for some cases of this disease than weeks or even months of other treatment can effect without them.

Multiple scarification, performed either with a scalpel or an especial knife made for the purpose, with the cutting surface on the end, or with the many-bladed knife of Squire, serves an excellent purpose in certain cases of lupus, and will also yield good results in some nævi, and in rosacea. The large veins of acne rosacea, especially on the nose, may be removed by slitting them up carefully and burning the track of the vein with a point of nitrate of silver. They may also be successfully obliterated by electrolysis.

Electrolysis now plays a considerable part in dermal therapy, and in some conditions yields brilliant results. Its use, now so common, in destroying superfluous hairs, need but be mentioned, as is well known, it offers about the only method of permanently removing this blemish, which often proves such a serious annoyance or distress to those thus afflicted. The only other method known to me is one which I devised and presented some years ago, namely, that of boring out each hair follicle with a three-cornered needle, dipped in carbolic acid; when well performed this is fully as successful as electrolysis, and is prefered by some patients who have had both methods used on them.

Electrolysis is likewise of value in destroying pigmentary and hairy moles, and nævi of various sizes, as also in producing the absorption of tumors. The galvanic cautery also plays an important part in the treatment of some affections, the end, however, being the same as that obtained by the actual cautery and by Pacquelin; but with the galvanic cautery more delicate work can be done, and Besnier has devised a considerable variety of shapes for the knives, some of them having a number of fine points, heated by electricity, for the treatment of nævus and other conditions. The value of the galvanic current, variously applied, must also be reckoned among the advances of recent years. It is most valuable in checking the pain accompanying and following herpes zoster, and there is some evidence that it tends to arrest the progress of the disease; it is valuable in relieving the pain in dermatolgia, and to a certain extent will control pruritis. Galvanization has also been reported on favorably in connection with other diseases of the skin, notably eczema, it being used in the form of general or central galvanization. Faradization has also been recommended in acne rosacea, but is of doubtful value.

Perhaps there are no remedies to which more attention has been called of late than ichthyol and resorcin, largely through the instrumentality of Dr. Unna, of Hamburg, and time sufficient has now elapsed since their first introduction to allow of judgment regarding their true merits, for quite contradictory reports have appeared concerning them. They are placed by Unna as reducing agents, drawing oxygen from the tissues, and altering the corneous layer of the skin. They are by no means indifferent substances, but while capable of doing more or less good when properly used, they are irritating in many conditions, and in my experience, as also that of some others, they have not fulfilled the expectations excited by Unna's original contributions to the subject.

Ichthyol should always be used weak at first, the strength being increased according to the effect produced; 2 per cent., either in water or ointment, is strong enough to begin with, and rarely will more than 5 per cent. be well borne, at any rate on American skins. As a lotion, 2 to 3 per cent. in water, it certainly often exercises a remarkable effect on ulcers of the leg, they being kept wet with it all the time, the dressing being covered with a thickness of woolen blanket (but not rubber or oil-silk), to prevent too rapid evaporation. It is sometimes well at night to substitute an ointment, with 2 or 3 per cent of ichthyol and a little zinc oxide. In certain moist eczemas about the folds of the body, a light bathing with a weak, 2 per cent. ichthyol lotion, followed by a calamine and zinc lotion, will give much better results than the latter alone. In certain cases in eczema in infants the effect produced by a thorough and continuous use of a zinc ointment containing 20 grains of ichthyol and 15 or 20 of salicylic acid, is certainly remarkable, and undoubtedly much greater than from either the zinc ointment alone, or when combined only with the salicylic acid.

Time does not permit of a fuller consideration of ichthyol in this place, but enough has been said to show that it is an agent of some importance, capable of doing harm when used too strong, and of moderate value in allaying acute erythematous conditions of the skin.

Resorcin, which has been spoken of much in connection with ichthyol, is said to have much the same effect, but its action is more uncertain, and its use more restricted. It is undoubtedly a parasiticide, and forms a very cleanly and pleasant application in tinea vesicular, used in solution from 3 to 5, or even 10 per cent. in water with a little alcohol and glycerine. It is also of value in tinea circinata and maginatum, and it is claimed that a strong ointment, from 3 to 10 per cent., will act most favorably in tinea sycosis. Resorcin is also serviceable in pityriasis capitis, used in a 3 to 5 per cent. solution with alcohol and castor oil. In seborrhœic eczema it also acts very well in a strength of 3 per cent., with zinc ointment. In psoriasis it may be used considerably stronger, even up to 10 to 20 per cent. in ointments.

Resorcin certainly seems to have considerable effect upon the sebaceous glands, and is useful in

many of the forms of acne. Used in an alcoholic and watery solution, of from 2 to 5 per cent., it checks the oily secretion so common on portions of the face, and as an addition to lotions containing sulphur it often aids greatly in the treatment of acne. It must not be forgotten, however, that resorcin may prove very irritating if used in too strong a proportion—3 to 10 per cent. is quite sufficient—and also that it often produces a discoloration of the epidermis, which may take some little time to wear off.

Unna has also, during the few past years, written much concerning the uses of various ointments made into the form of plasters, by making them thicker and more sticky, and then pressing them upon and into the meshes of muslin; these so-called "pflaster-mulle" have been imported from Germany but little, and are difficult to obtain. They are made to contain zinc, tar, naphthol, chrysarobin, ichthyol, salicylic acid, and other ingredients. These plasters serve a certain valuable purpose in keeping a fixed dressing in localities where it would otherwise be difficult to retain an application, and also by the maceration afforded aid in removing disease; on the other hand, they often prove too drawing, and unless the medicament is very bland, much inflammation may thereby be set up.

In the same line of therapy may be mentioned the "dermatological plasters," now prepared and offered by several firms in this country, which at times serve an excellent purpose; they are mostly made up with rubber plaster, and often prove too heating and drawing, and can hardly be considered the equivalent either of the "pflaster-mulle" or of proper ointments well spread on lint and kept in place by suitable dressings. Among these new plasters may be found those containing very many of the more common and newer drugs used in dermatology. I cannot speak personally regarding very many of these, but some of them prove at times of very great service. Thus, in thickened patches of eczema, about the hands and feet especially, the salicylic acid plaster, 10 or 20 per cent., will promote absorption and greatly reduce the thickening; those with zinc and tar, each 10 per cent., are also valuable in eczema, and those with 10 per cent. of chrysarobin act well in psoriasis; all are familiar with the value of plasters containing mercury in reducing the late lesions of syphilis.

Attempts have been made in other directions as to the means of securing fixed dressings on the skin, and various preparations have been brought forward to hold the medicament in solution or suspension, while it is painted over the affected surface. The use of collodion, made flexible with castor oil, has long been known, and this often serves a most excellent purpose when containing from 3 to 5 per cent. of chrysarobin, or pyrogallic acid, and as much salicylic acid; iodine may also be successfully applied in this manner. Gutta-percha dissolved in chloroform, the liquor gutta-perchæ of the Pharmacopœia, or traumaticine, as it has been called by the trade, affords another admirable method of affixing medicaments to the skin; any desired substance, oxide of zinc, bismuth, tannin, chrysarobin, or preparations of mercury may be suspended in it, and made to adhere to the skin thereby.

Another mode of making fixed dressings is that known as glycerine jelly, made by boiling one part of gelatin with three or four of glycerine, and a little water if necessary to make a gelatinous mass. The various ingredients desired are incorporated with this while hot, by stirring, generally from 5 to 10 per cent. being added, together with a little carmine to give a flesh tint if it is to be used on exposed surfaces. This forms a bland dressing, and with zinc or bismuth serves well to protect large surfaces; it will not adhere when there is moisture exuding, but on dry, scaly eczema, in some cases of lichen planus, and pityriasis losea, it forms a serviceable dressing. Carbolic acid, camphor, or cocaine may be added to relieve itching. It is applied by placing the jar containing the jelly in hot water, when the liquefied substance can be freely painted over the affected surface, forming a smooth protecting coat as it cools.

Considerable attention has been called to lanolin during the past few years, largely, it is feared, on account of the vigor with which it has been pushed in a mercantile way. Its merits have been pretty well tested, and it may be stated that it has not fulfilled the high expectations which have been raised concerning it; it has its value and its applications, but they are limited, and it will undoubtedly take its proper place among the remedies which are of value in the treatment of diseases of the skin. It does not answer alone as a basis for ointments, but when combined with other fatty ingredients, in about 25 per cent., it often aids in keeping the skin soft and pliable, when without it the oily matter would disappear and leave the surface harsh. It has been advocated largely on account of its supposed power of inducing absorption of the medicament which it contained; if this power existed in this substance alone, it would not recommend it for universal use, for in much of dermal therapeutics the object is not to secure absorption of remedies, but to act on the outer surface. It would surprise many to see how very little it is used by those engaged in the practice of dermatology.

Another addition to the class of fatty bases for ointments which has been brought forward of late years, is found in the various preparations made from petrolium, notably, vaseline, cosmoline, and albolene. All are familiar with the wide range of applicability of these substances, and the service which they have rendered is un-

questionably very great, and they could be illy spared from the Pharmacopœia. But it is proper here to raise a word of caution against their too common use as a basis for ointments, it being even proposed, I am informed, to make it the officinal basis of ointments in the coming revision of the Pharmacopœia. The New York Dermatological Society has already taken strong action in opposition to this suggestion, and every one who has carefully tested the subject will readily see that it is far inferior to other substances for this purpose, certainly in the large proportion of instances. When it is desired to lubricate the surface, as in pityriasis, rubra and many dry and scaly conditions of the skin, nothing better can be desired; and as an excipient, to convey carbolic acid, or other anti-pruritic remedies, to the skin, it answers perfectly. But when it is desired to form a protective covering, which shall hold a medicament in contact with the skin for some time, vaseline and cosmoline are found far too soft, and even albolene does not seem to afford the "body" desired for an effective ointment, such, for instance, as is found in good diachylon ointment made after Hebra's formula.

Here I must speak again for the ointment which I have often mentioned as preferable, in my experience, to all others, and which I invariably use in compounding prescriptions, namely: the unguentum aquæ rosæ of the pharmacopœia. This is composed of almond oil, spermaceti and white wax, with considerable water, and is far more grateful to the skin than lard, and of a consistency which combines best with very many substances. Brief mention may be made of some single substances which have come into pretty general use in dermal therapeutics.

Salicylic acid has been mentioned incidentally several times. It is a valuable addition to our armamentarium, but requires some care in its use. It has a drying effect on the skin, and the addition of 2 or 3 per cent. of it to various ointments will often increase their effect greatly, though sometimes it proves irritating. Combined with hair tonics, in a strength of from 3 to 5 per cent., it acts excellently in cases where there is an oily seborrhœa; dissolved in alcohol and water, 10 to 20 per cent. solution, it is an efficient parasiticide, and incorporated with oxide of zinc, a drachm each to an ounce of powdered starch, it is very efficient in checking excessive perspiration, in the axilla and elsewhere.

Chrysophanic acid, or chrysarobin, as it is now called, is well known to the profession from the remarkable power which it has in dispelling the lesions of psoriasis. When it is desired to remove the eruption quickly, regardless of all else, no agent will accomplish this as quickly as this drug, properly used, but, on the other hand, the disadvantages attending its use in the way of staining the skin and clothing, together with the intense inflammation which it occasionally sets up, has greatly restricted its use, in private practice at least; personally I use it but little, and then mainly in the form of paint, with collodion or gutta-percha, as before alluded to.

Pyrogallic acid has to a certain extent taken the place of the chrysarobin, but it is less efficacious in psoriasis. Its effect in epithelioma, however, is often quite remarkable, and the powdered acid sprinkled freely on a small epithelioma will often quite alter the diseased action, and ensure healing.

Anthrarobin has also been brought forward as a substitute for chrysarobin, and appears to have a marked effect upon psoriasis. Used in a 10 per cent. ointment it removes the eruption almost as quickly as chrysarobin,[2] and without producing inflammation, or staining as much as the latter. Alkali baths increase its action.

Naphthol has attained considerable reputation from its pronounced value in the treatment of scabies, a 10 per cent. ointment sufficing to remove the disease with little trouble. It is also serviceable in psoriasis, in 15 per cent. ointment, and in seborrhœa and in some other affections.[3]

Two or three antipruritic remedies may be mentioned before bringing this hasty sketch to a close. Menthol in from 5 to 15 per cent. solution, with a little alcohol and glycerine and water, often proves a most serviceable means of allaying itching. Cocaine, from 5 to 10 per cent. in ointment or solution, is also a remedy of value in certain cases. It is also valuable in connection with epilation for parasitic diseases of hairy parts, used either in solution, or in connection with the ointment applied it will very greatly diminish or entirely obviate the pain attending this operation. Campho-phenique, a newly presented remedy, composed of camphor and carbolic acid, often proves efficient in pruritus; a drachm to the ounce of vaseline, or perhaps a little stronger, will often give complete rest to an intolerable itching.

In this attempt to direct attention to some of the more recent additions of value to our dermal therapeutics, I have confined my attention entirely to local treatment, for here it is that the greatest advances have been made, or rather those which are most clearly demonstrable. But I cannot close without again throwing out the suggestion that this is by no means all of dermatology, and he will succeed but poorly who relies alone or mainly on local measures. While it is of the highest importance that these be proper and suitable, it is none the less essential, to real and permanent success, that all elements which contribute to the end, as diet, hygiene, and internal medication, should be used intelligently and persistently.

Again I feel like apologizing for the plainness

[2] Bronson. Journal of Cutan. and Genito-Urin. Diseases, November, 1888, p. 409.

[3] Van Harlingen. Amer, Jour. Med. Sci., October, 1883, p. 479.

of my speech, and the urgency with which I press this matter; but my apology is only that experience has so often shown me that failure more commonly comes from not perfectly grasping and considering all the elements bearing upon skin cases, than from the lack of proper remedies to meet diseased conditions, that I cannot refrain. The number of new remedies and measures which have been proposed and advocated since I first took up this branch of medicine, twenty years ago, is far greater than could be imagined by one who had not specially watched the subject, and even a brief recital of them might occupy most of the time of our Section, and yet very few of them have stood the test of time and experience, and still fewer of them have obtained a wide and practical recognition, and are now employed.

I would not, of course, discourage attempts to make therapeutic advances in dermatology, but I would only throw out the suggestion of Holy Writ, both to those proposing and those accepting novelties in this department of medicine, "Prove all things, hold fast that which is good."

ORIGINAL ARTICLES.

THE MEDALS OF BENJAMIN RUSH, OBSTETRICIAN.

Read at the Fortieth Annual Meeting of the American Medical Association, held at Newport, R. I., June, 1889.

BY HORATIO R. STORER, M.D.,
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Recently, during researches relative to a paper upon the medals, jetons and tokens illustrative of the science of medicine, at present appearing in the *American Journal of Numismatics*, I learned of a gold medal conferred by the Society of Medicine of Caen, France, upon the late Dr. Jean Charles Faget, of New Orleans, a graduate of the University of Paris, Chevalier of the Legion of Honor, and distinguished as an author in various departments of medicine.[1] With the impressions of this medal that have been kindly sent me by Dr. Faget's family, I have received copies of a portion of his works. Among them is an interesting brochure, published at Paris by the Baillières, entitled, "L'Art d'apaiser les Douleurs de L'Enfantement" (The Means of Assuaging the Agony of Parturition).

THE CLAIM OF RUSH TO THE TITLE OF OBSTETRICIAN.

In this memoir, Dr. Faget quotes a striking statement by the most eminent, perhaps, of American physicians, Dr. Benjamin Rush, of Philadelphia, for many years professor of the institutes and practice of medicine and of clinical practice in the University of Pennsylvania. In discussing the symptoms of labor, and as if directly anticipating and answering in advance the objections that were to be urged half a century later in his own city, by the celebrated Dr. Charles D. Meigs, Dr. Rush had said: "By some divines these symptoms, and particularly pain, have been considered as a standing and unchangeable punishment of the original disobedience of woman, and, by some physicians, as indispensably necessary to enable the uterus to relieve itself of its burden. By contemplating the numerous instances in which it has pleased God to bless the labors and ingenuity of man, in lessening or destroying the effects of the curse inflicted upon the earth, and by attending to the histories of the total exemption from pain in child-bearing that are recorded of the women in the Brazils, Calabria, and some parts of Africa, and of the small degrees of it which are felt by the Turkish women, who reduce their systems by frequent purges of sweet oil during pregnancy, I was induced to believe pain does not accompany child-bearing by an immutable decree of Heaven." And again: "I was encouraged (in this) by having known delivery to take place, in one instance, during a paroxysm of epilepsy, and in another during a fit of drunkenness; in both of which there was neither consciousness nor recollection of pain."[2]

The notable passage referred to above as reproduced by Dr. Faget, in his French monograph, is the following: "I have expressed a hope in another place that a medicine would be discovered that should suspend sensibility altogether, and leave irritability, or the power of motion, unimpaired, and thereby destroy labour pains altogether."[3]

The "another place" to which Rush here makes allusion is a letter dated May 12, 1802, to Dr. Edward Miller, entitled "On the means of lessening the pains and dangers of child-bearing, and of preventing its consequent diseases." In this, when speaking of cases "where the absence of throes and the slow progress of delivery indicate a deficiency of muscular irritability in the fibres of the uterus," Dr. Rush shows the advantage of opium, and goes on to say, "I think I have seen the happiest effects from that excellent medicine in such cases, in destroying useless pains and shortening the progress of the labor. How far a medicine (if such can be found) so powerful as wholly to suspend the sensibilities of the nerves, without impairing their irritability, might succeed in destroying pain altogether, I know not."[4]

In this letter, aside from the special point that I make in the present paper, Dr. Rush demonstrates, throughout, that he was a skilful obstet-

[1] The biography of this gentleman will be found in our Permanent Secretary, William B. Atkinson's work, "The Physicians and Surgeons of the United States," Philadelphia, 1878, p. 44.

[2] "Medical Inquiries and Observations," Third Edition, 1789-1811, iv, pp. 373, 374, 376.

[3] Ibid., p. 376.

[4] Medical Repository, vi, 1803, p. 24.

rician. In its very title, he closely associates the pains of labor with its dangers, he announces that they can both be lessened, he recognizes that they are the potent cause of subsequent disease, and he teaches its prevention. Here, as in the passage quoted by Dr. Faget, Dr. Rush foreshadows the great discovery which has taken from parturition its anguish, without interfering with its progressive natural action, and has greatly lessened its perils to mother and child.

Upon referring to the work of Walter Channing, of Boston—a native, by the way, of Newport, and upon this occasion to be spoken of with especial honor—to whom, as also to Sir James Y. Simpson, as the first physician to induce artificial anæsthesia in childbirth, Dr. Faget gives due credit, I find this comment: "It is grateful to recur to the opinions of our distinguished countryman (Dr. Rush) on a point which he approached with sentiments of the profoundest reverence, on account of the authority on which it is supposed to rest, whilst he successfully controverted the popular inference, namely: the penal character, involving a physical necessity of pain in labor." He had conceived "a hope. Was it not prophecy? Had it not so much of truth as a basis, that the great discovery of our own day seems to be the revelation of that truth? His doctrines were rather inductions, or the generalizations of facts, than theories." He "expresses 'a hope' of the discovery of a remedy of (obstetric) pain," but he also states "the reasonableness, the moral evidence, of that hope, so that it becomes faith."[5]

It will be noticed that Rush distinctly contemplated the removal of sensibility alone, and the retention of uterine activity. His views therefore were precisely those of the best authorities of the present day, regarding the conduct of natural labor. He was in general sympathy with Sydenham, whose works he edited, and for whom he even named his country seat, and it is not unlikely that through studying upon this account the more closely the effects in labor of opium, his opinion of which I have already quoted—and that preparation of it which is known as Sydenham's to the present day—he came to perceive the end that was to be searched for in childbirth beyond merely soothing its pain, namely: the preservation unimpaired of uterine contractility and expulsive power. Dr. Rush, besides, was far in advance of his time in recognizing the evil effects of alcohol upon the human system, both in health and disease. One of the cases which he reports was of painless labor "during a fit of drunkenness." This would have added to his desire to produce the effect, temporary anodynia, while avoiding its disreputable and injurious cause.[6]

That Rush had anticipated by nearly fifty years the magnificent idea which was to result in freeing woman from the burden of incalculable suffering that had been borne by her through the ages, seems to have been recognized by no one besides Channing, save Faget and one single other.

In 1876 Dr. Gaillard Thomas both noticed and quoted Rush's aspiration, yet he seems to have mentioned it as but an incident in the course of his generous tribute to Simpson, the more striking from appearing in the very same book wherein was made the direct implication, of course an accidental one, that the anæsthetic property of chloroform was an English and not a Scotch discovery.[7] Dr. Thomas, in speaking of the introduction of anæsthesia into the lying-in chamber as an era in the history of obstetrics, thus declares: "It is somewhat singular that after the discovery of anæsthesia in this country, after the prediction, long before its discovery, by one of America's greatest physicians, that 'a medicine would be discovered that should suspend sensibility altogether, and leave irritability, or the power of motion, unimpaired, and thereby destroy labor pains altogether'; after it had been employed here in hundreds of cases for surgical operations, this link of the chain should have been forged by a European. Yet such was the case, and far be it from any American to begrudge him one atom of the glory which he deserves, or to endeavor to dim its lustre by 'faint praise.'"[8]

We do not find Rush's prophecy, where of all places it would have most naturally been looked for, in the bitter letters of the elder Bigelow, of Boston, in 1869 and 1870, to Sir James Simpson, nor in the minute statement, six years later, by his son,[9] although both of these gentlemen were colleagues of Channing in the Medical School of Harvard University.

Channing seems to have been the first to discover the great suggestion made by Rush. His reference to it in 1848 was apparently perceived by none till Thomas in 1876—thence by none till Faget in 1880, who again was unaware of the allusion to it that Thomas had made. From 1880 till now there exists the same utter silence as before.

I make this statement with hesitation, for the fact seems almost incredible. Several friends, however, have assisted me during the present investigation. From the Treasurer of the Rush Monument Association, and ex-President of our own, Dr. J. M. Toner, the person of all now living probably most familiar with the life of this signer of the Declaration of Independence, I have received for examination many biographies of Rush,[10] from his own very extensive collection of

[5] "A Treatise on Etherization in Childbirth." Boston, 1848, p. 150.

[6] "An Inquiry into the Effects of Ardent Spirits upon the Human Body and Mind," 1785.

[7] "A Century of American Medicine, 1776-1876," Phila., 1876, p. 80.

[8] Ibid., p. 262.

[9] H. J. Bigelow. "A History of the Discovery of Modern Anæsthesia." "A Century of American Medicine," Philadelphia, 1876, pp. 73-112.

[10] I. Sanderson's "Biography of the Signers of the Declaration

medical works now in the Congressional Library, and he has besides aided me in the search itself. Dr. Toner writes me as follows: "I have nowhere found allusion to the wonderful hope expressed by Dr. Rush." Dr. Paul F. Mundé, of New York, who as editor for so many years of the *American Journal of Obstetrics*, aside from his own special researches in this direction, has had reason to keep informed of all that has been published upon midwifery, reports a similar result. "I do not recollect," he says, "ever seeing the name of Dr. Rush in this connection. Certainly, he had a remarkable gift of prophecy!" Dr. James R. Chadwick, of Boston, the founder of the great medical library at Boston and a most faithful observer of all that occurs in obstetrics, writes me to the same effect. "The prophecy of Dr. Rush was new to me. I have not seen it alluded to by any writer. It is of very great interest." And Dr. Gaillard Thomas, whom alone besides Channing and Faget I had found alluding to Rush in this connection, informs me that he recollects no one who has appreciated Rush's prophecy save Channing.

You and I would, I think, have felt aggrieved had it been intimated that we were unfamiliar with the works of Rush and of Channing, and the chapter by Thomas, but for myself I am willing to acknowledge that having eyes I saw not, neither did I understand. With all my interest in the general subject, the full significance of Rush's true position toward this question, has not struck me until now.[11] A student at Harvard University during the first use of sulphuric ether at the Massachusetts General Hospital, and though still an undergraduate a witness of many of the earlier operations during which ether was there employed—a friend of Dr. Charles T. Jackson, whose gold medal from the Swedish Government commemorates that, however he would have neglected of himself to communicate the discovery to the world, the idea of employing sulphuric ether as an anæsthetic was due to him—a pupil of Channing, and of Simpson, whose great Montyon gold medal from the Institute of France was given not merely for his other transcendent merits, but because by annulling the pains of childbirth, he thereby removed the primal curse, and lessened in almost equal degree both infantile and fœtal mortality, and by employing chloroform as the agent, was better able than with ether to momentarily suspend sensibility, in Rush's language, without impairing uterine irritability—and having myself twenty-six years ago, in 1863, contributed by an essay upon the subject[12] that Thomas in the "Century of American Medicine," already referred to, was kind enough to call "of considerable value,"[13] to the work these preëminent philanthropists had commenced in reference to the general employment, even in natural labor, of artificially induced anæsthesia, I have yet failed, till the present moment, to properly recognize Rush in one of the most beneficent of the many labors in which he was engaged. His work as a sanitarian had been duly appreciated.[14] He had published papers upon diet,[15] climate,[16] military hygiene,[17] leprosy,[18] hydrophobia,[19] and yellow fever,[20] and for his great services during the epidemic of the latter in 1793, he had received unusual honors; among them, gold medals from the King of Prussia in 1805 and the Queen of Etruria in 1807, and a diamond ring from the Czar of Russia in 1811. The chief point upon which, I predict, his lasting fame will rest was, however, wholly unappreciated during his life, and now, seventy-five years after his decease, it seems to have escaped the notice of all his biographers and to have been but three times alluded to by writers upon midwifery.

Very interesting, moreover, appears the fact, to which Dr. Faget has also drawn attention, that Dr. Rush studied at the University of Edinburgh,

of Independence—Rush." Philadelphia, 1823, Vol. iv, pp. 249–288.

2. "Report of the Committee on the Erection of a Monument to Dr. Benjamin Rush." JOURNAL OF THE AMER. MED. ASSOCIATION, 1885.

3. Dr. Thomas D. Mitchell. "The Character of Rush." Introductory Lecture at Philadelphia College of Medicine, 1848.

4. Dr. David Hosack. "An Introductory Discourse, etc., and a Tribute to the Memory of the late Dr. Benjamin Rush. New York, 1813.

5. Dr. Lettsom. "Recollections of Dr. Rush." London, 1815.

6. C. "A Tribute to the Memory of Dr. Rush." The Port Folio (Phila.), October, 1813.

7. Dr. David Ramsay. "An Eulogium upon Benjamin Rush, M.D." Phila., 1813.

8. "Benjamin Rush, M.D." National Portrait Gallery of Distinguished Americans, Vol. iii, Phila., 1836, pp. 52–61.

9. "Sketch of the Life and Character of the late Benjamin Rush, M.D., LL.D." Am. Med. and Phil. Register (New York), July, 1813, pp. 1–16.

10. "Elegiac Poem, on the Death of Dr. Benjamin Rush." Phila., 1813.

11. Dr. G. K. Johnson. "Memoir of Dr. Benjamin Rush." 1877. Among other memoirs of Rush, besides the usual Cyclopædic ones that I have consulted, have been that contained in Thacher's Am. Med. Biography (Boston, 1828), and the admirable "Benjamin Rush and American Psychiatry," by Dr. C. K. Mills, of Philadelphia (Medico-Legal Journal, December, 1886).

11 I had not recognized Rush's place, or Faget's either, among obstetricians, when I prepared my paper upon the medals, jetons and tokens illustrative of obstetrics and gynecology (New England Medical Monthly, November and December, 1886).

12 "The Employment of Anæsthetics in Obstetric Medicine and Surgery." (Read before the Massachusetts Medical Society, June, 1863.) Boston Med. and Surg. Journal, October, 1863, p. 249; and republished under the title "Eutokia; A Word to Physicians and to Women upon the Employment of Anæsthetics in childbirth." Boston, 1863, 8vo. See also, "On Chloroform Inhalation during Labor; A Reply to Dr. Robert Johns, of Dublin." Boston Med. and Surg. Journal, August, 1863; and "The Practically Absolute Safety of Profoundly Induced Anæsthesia in Childbirth, as compared with its Employment for General Surgery." Edinburgh Medical Journal, February, 1877.

13 Loc. cit., p. 268.

14 "The Medals, Jetons and Tokens illustrative of Sanitation." The Sanitarian, April, 1888, p. 349, etc.

15 "An Inquiry into the Effects of Ardent Spirits," etc., already quoted; "Observations upon the Habitual Use of Tobacco upon Health, Morals and Property."

16 Dr. Rush edited Cleghorn on the "Diseases of Minorca," in 1809; and shortly after, in 1810, Hillary upon the "Air and Diseases" of the same island.

17 Dr. Rush edited Pringle on "Diseases of the Army," in 1810. He had held, under appointment from the Continental Congress, the high office of Surgeon and Physician-General of the Hospitals in the Middle Department of the Army.

18 "Observations, intended to favor a supposition that the Black Color of the Negro is derived from Leprosy." Trans. Am. Phil. Society, iv, 1792.

19 "Remarks upon the Hydrophobia." Am. Med. and Phil. Register, N. S., July, 1813, p. 16.

20 "Facts, intended to prove the Yellow Fever not to be Contagious." 1803; "An Account of the Bilious Yellow Fever as it appeared in Philadelphia in 1793, 1794, and each successive year till 1805."

and had access to that wealth of mediæval medical literature in its library in which Simpson so revelled, and whence he was accustomed during his researches into obstetric medicine, surgery and sanitation, to adduce so many wholly forgotten precedents. As a student myself of that ancient school, I can appreciate the influences that formed Rush's character, as observer, medical philosopher and practitioner. Born near Philadelphia in 1745, Dr. Rush took his degree at Edinburgh after two years of study there in 1763, and he proved Scotch in his subsequent methods of thought and of action, till his death in 1813.

Channing again was a pupil of Rush, to whom it was always his delight to affectionately refer. He graduated as a physician at the University of Pennsylvania in 1809. Through Rush's influence it was, undoubtedly, that he in turn resorted to the University of Edinburgh, and there drank from the fountain that had inspired his preceptor. It was not till 1812 that he received his medical degree at Harvard. He retained through his life his affection for the Scotch capital. His relations with Simpson were intimate, and it was his delight that while Simpson was the originator of actually induced anæsthesia in midwifery, he himself was the first American to urge its general use for this end. So far as the realization and final employment of obstetrical anæsthesia are concerned, Edinburgh, through Channing its American, as well as Simpson its direct representative, well earned its palm. It is strange that the first conception of the idea should also have been by a foster child of Edinburgh, Dr. Rush. Again, Drs. Channing and Charles T. Jackson were friends and close neighbors. They had long before occupied the relations of teacher and pupil. They lived upon the same street, their houses being but a few feet apart. They were upon confidential terms of acquaintance, with similar tastes for abstruse research in very unusual directions. The only wonder now is that the one, knowing the need of suffering woman which Rush at the very commencement of his medical studies had taught him, for an artificial solace at the time of her greatest physical trouble, and the other, having discovered and bearing for so long in his mind the anæsthetic qualities of the agent which gave the first step towards the solution of the problem — that these men should not have come more closely together, and the obstetric world's great secret been earlier made known. Jackson was an accomplished chemist, and searcher for recondite applications of his science to art, and Channing a most remarkable medical antiquarian. With Channing as his coadjutor, Jackson would not probably have been so grasping for riches and for fame as he proved when associated with Morton, though this may have been but the premonition of the mental malady which, as in the sad case of his competitor, Horace Wells, occasioned his death—while poor Morton, jealous and all tenacious to the last, died, though more suddenly than Jackson, just as consequentially. The fearful quarrel, that involved in its scandal wellnigh the whole profession of the time, and indeed almost the good name of science itself, would perhaps thus have been avoided, and the birth of the divine idea might not have been, as it was, attended by the sundering of intimate personal ties, by deep distress and by wailing, the echoes of which have as yet scarcely ceased.

There is a strong parallel that may be drawn between the posthumous estimates of the two illustrious physicians of whom I have chiefly spoken in the present communication. It was at the close of the meeting of the American Medical Association at Washington, in May, 1870, that the news was received of Simpson's death, telegraphed by his son to your present reader within a very few moments after the event had occurred, and there are undoubtedly those now here who recollect with what regret the announcement was received by the Association, and the solemnity of the memorial meeting which was held immediately afterwards by its delegates and the medical residents of Washington. Whatever the previous feeling of individual members of the profession, in favor of ether or of chloroform as an anæsthetic, or regarding the respective claims of Boston and Edinburgh, which had improperly been made to seem antagonistic, all cavil was silenced at the touch of death. It has been so also with Dr. Rush. The rivalries of his time, which were intense, are forgotten. His own city, to which in his lifetime he was no prophet, points to him with pride. The great professional centres of our continent vie with each other in recognizing him as the most fitting representative of early American medicine, and the chief ornament of the far reaching University whose distinguished provost is one of the orators at the present meeting of the Association. Seventy-six years have now passed since the death of Rush. It is but of late, as our lamented ex-President Gross said of our equally great McDowell, that "the chaplet that should have been worn on his brow has been placed by a grateful profession upon his tomb."[21] To add a fresh leaf thereto is not my privilege merely, but a filial duty. It is seldom that a man can trace back for a hundred years the influences that have shaped his own life and the little work he may have attempted to accomplish for medicine. Rush was at Edinburgh in 1768. It was entirely through his advice that thither went his pupil Channing. It was by Channing's influence that it became my own Mecca in 1854. Sincerely grateful, therefore, I am to Rush, and delighted to aid towards the high esteem in which he will henceforth be held by our obstetrical brotherhood. Should the question ever arise, from the sequences

[21] "A Century," etc., p. 121.

that I have endeavored to trace, whether Simpson, like Channing, had appreciated Rush's prophecy, I am sure from what I know of his character, that such could not have been the case. He ever freely gave of his knowledge to the world, concealing nothing, and he was particularly generous in his treatment of Americans, whether living or dead. Even after Channing had quoted Rush, the full meaning of the American prophecy seems to have escaped Simpson, as it has us all, else he would have been sure to have used it, sharply, when replying to the senior Bigelow, equally unaware of its existence. The latter of Simpson's answers to the Boston sage was written, it will be remembered, from his deathbed. It was his farewell to the profession, of obstetrics and at large—happy, he said, "if it tend to fix my name and memory in their love and esteem."[22] At such a solemn hour, had he clearly understood what we now know of Rush, his would have been the hand, promptest of all, to give justice where it was due.

Just as John Bell, of Edinburgh, in 1794 urged the performance of ovariotomy, and in 1809 it was successfully accomplished by his pupil, Ephraim McDowell, of Kentucky, so in 1802 or thereabouts Dr. Rush, a graduate of Edinburgh, foresaw the possibility and need of obstetrical anodynia, and in 1847 his dream, by all forgotten, became reality at the hands of the Edinburgh professor, Dr. Simpson.

Dr. J. R. Chadwick has asked me if Rush could have been familiar with Joseph Priestley's laboratory experiments with nitrous oxide. I have no doubt that such was the case, aside from the fact that after 1794 Priestley was a neighbor of his in Pennsylvania, and most probably also a personal friend. (It is another curious coincidence that a near relative of the philosopher, Dr. William O. Priestly, of London, should have been one of Simpson's best loved and subsequently most disguished pupils.) It is moreover possible that Rush had noticed what Davy had just then suggested, in 1800, regarding the use of nitrous oxide as a purely *surgical* anæsthetic. However this may be, the fact remains that Rush had advanced far beyond the point assumed by Davy. What he desired and foretold was not the destruction of sensibility alone, but the retention with this, in full activity, of a certain usually dormant, but in obstetrics all-important, system of nerves. Davy made no reference to allaying the pains of childbirth. His whole thought was of *surgical* anodynia, the mere quieting of general sensibility. He evidently never dreamed of obstetrical anodynia, where nervous irritability and uterine contractility must be retained unimpaired. And so with Boston. To Boston, indisputably, belongs the honor of having first demonstrated the general practicability and safety of induced surgical anæsthesia, against which there did not exist the then seemingly grave theological objections that were so vehemently urged against its *obstetrical* employment, and which made the triumph in this direction the more difficult, and yet for this very reason the more to be commemorated.

[22] "Modern History of Anæsthesia." (Anæsthesia, Hospitalism, etc. Edited by Sir W. G. Simpson, Bart.) Edinburgh, 1871, p. 41.

THE RUSH MEDALS.

I have thus briefly presented Dr. Rush's claim to be honored by you, gentlemen, the teachers, cultivators, and practitioners of midwifery in the United States. Eventually, the memorial determined upon by this Association, in collecting the funds for which Medical Director Gihon, U. S. N., Dr. Geo. H. Rohé of Baltimore, ex-President Toner of Washington, and others of your Committee, have labored so faithfully, will be erected, and mankind will be reminded of "the Sydenham of America."[23] It remains for you to influence the profession toward the hastening of that time, marking at last "the Rush renaissance."[24] Meanwhile, that you may contemplate the features of the man himself, and appreciate the better the parallel that has been drawn between him and the great light of British medicine, I show you reproductions, from my own collection, of the two medals that have been struck in his honor at the U. S. Mint, of which he was long the Treasurer. They have been photographed for me from the originals, greatly enlarged, by my friend, Mr. Clarence Stanhope, of Newport, and I wish that copies could be placed in every medical, historical and public library in the country. The following are their descriptions:

1. Obverse. Bust, with queue, to left; a neck cloth under the collar. Beneath shoulder, F(urst). Inscription: BENJAMIN RUSH, M.D., OF PHILADELPHIA. Reverse. A river, flowing from side to side forwards; in background, the setting sun, with clouds and mountains. Large trees in foreground, to right; to the left, SYDENHAM. In front, a block of stone, on which: READ—THINK—OBSERVE. Upon this, an open book. Beneath, to right: M(oritz). FURST FEC. Exergue: A(nno). MDCCCVIII.
   Silver (?), bronze, lead. 41 mm. 27.

The legend upon the reverse is from the close of his lecture, "On the Causes which have Retarded the Progress of Medicine." It is very similar to the "HEAR. READ. MARK. LEARN." upon an old medal of Christ's Hospital School, London, which is in my collection, in silver.

I have this medal of Dr. Rush both in bronze and lead. It is also at the Surgeon-General's Office at Washington, from the Lee Collection, in the former of these metals. It is very rare, and seems unknown to all numismatic writers. The die cutter, Fürst, was at the time an assistant engraver at the U. S. Mint.

[23] The above term was first applied to Rush by his friend and biographer, Dr. Lettsom, of London. Loc. cit., London, 1815, pp. 3, 15.

[24] C. K. Mills. "Benjamin Rush and American Psychiatry." Medico-Legal Journal, December, 1886; Reprint. p. 2.

2. Obverse as in preceding.
Reverse. An altar, upon which rests an open book. In front, upon an oval panel, a bust of Æsculapius, with serpent-encircled staff. In another panel, at right, an urn. Beneath, to right: M. Furst Fec. Exergue: A(nno). MDCCCVIII.
Bronze, gilt bronze. 41 mm. 27.

Unknown to all writers upon medals. Still rarer than the preceding. It is in the Lee Collection and my own.

I have endeavored, but thus far in vain, to ascertain the history of these medals, and have been aided in my inquiries by Dr. Wm. Pepper, of Philadelphia, through whom I have received letters from Hon. A. Loudon Snowden, long Superintendent of the U. S. Mint, and Mr. R. A. McClure, in charge of the Mint Cabinet. Col. Snowden has written, under date of March 21, 1889: "The Dr. Rush medal is not in the Mint Cabinet, and its history is obscure," and again upon the 27th, "I have taken considerable trouble to seek information from several sources, but thus far without any particular success." Mr. McClure, like Col. Snowden, was aware of the existence of but the first of the medals described above, and this he had seen at Mr. Alexander Biddle's. He reports: "Mr. Biddle did not succeed in finding any information or clue to the occasion of the striking of the Rush medal. I went to the Ridgway and Philadelphia Libraries, and the rooms of the Historical and Philosophical Societies, and looked over the file of two daily papers of 1808, the year in which the medal was struck, and found nothing." Messrs. Bailey, Banks & Biddle, prominent medallic artists of Philadelphia, have also been unable to furnish me with the slightest information. From this will be perceived the extreme rarity of the medals, and the fact that though both of them were struck at the Mint, the very existence of one of the two had passed from the knowledge of the Mint authorities. Of the first of them, there are said to be known two specimens in silver. It was remarked several years ago,[25] before the revival of an interest in medical numismatics, that these would be cheap at $20 each. They would probably now bring very much more than this sum, and it is to be hoped that they have been secured for permanent preservation by medical institutions, though as to this I am as yet uncertain.

The portrait bust of Dr. Rush upon the medals was undoubtedly from sittings for the purpose, since they were executed five years before his death. It will therefore be of service, in connection with the familiar painting by Sully, in giving his exact features for the monument undertaken by the Association, when at last its construction shall be commenced.

In conclusion, a brief quotation from the "Elegiac Poem on the Death of Dr. Rush," may not seem out of place:

"Unchecked by ridicule, unawed by rules,
Fallacious dogmas, and the pride of schools;
With all the ardor of aspiring youth,
From fair experiment, the test of truth,
Deep searching Rush ingenious reasonings drew,
Bold to defend, and potent to subdue!
Determined truth by every mean to try,
Where others dared not gaze, 'twas his to fly;
He rescued truth from mad opinion's maze,
And caught from Science her inspiring rays;
Beamed o'er the healing art a radiant light,
Like orient phosphor o'er the mists of night."[26]

How appropriate beyond the intention of its writer, who was but lamenting his decease, is the following, to Rush's supreme anticipation of the discovery and application of artificially induced anæsthesia to midwifery!

"Thy light, bright Science, to this sphere confined,
Was far too little for his mighty mind!
Which soared beyond this world, and broke away
From darkened nature to a world of day."[27]

(The above paper was read before the Section of Obstetrics and the Diseases of Women, and by vote of the Section was referred to the Association itself, with the recommendation that it be read in general session also, as containing matter of interest to all practitioners of medicine.)

MODERN SANITARY CONDITIONS.

Read, by invitation, before the Section of State Medicine at the Fortieth Annual Meeting of the American Medical Association, June, 1889.

BY GEORGE E. WARING, JR.,
OF NEWPORT, R. I.

Early in 1855, moved by the most distressing condition of the sick and wounded in the hospitals of the Crimean army, Lord Panmure commissioned Dr. Sutherland, Dr. Gavin and Mr. Rawlinson to proceed to the Bosphorus and to the Crimea, and to take instant measures for the improvement of the sanitary state of those sadly crowded buildings.

Mr. Rawlinson, a man of sound sense, great practical skill, and a genius for direct and positive action, and then in the prime of life, was quick to apply to the appalling conditions with which he was confronted those well-trained abilities which had already marked him, and which still mark him, as one of the great lights of Sanitary Engineering.

The order was issued on the 19th of February. In less than three weeks the work at Scutari was already progressing and within a month a marked effect was obvious.

Kinglake says: "Then came on a change which, if only it had been preceded by mummery instead of ventilation and drainage and pure water supply, would have easily passed for a miracle. Down went the rate of mortality. Having already gone down from the terrible February rate of 42 per cent. to 31, it descended in the next fortnight to 14; in the next twenty days to 10;

[25] American Journal of Numismatics, 1885, p. 70.

[26] Loc. cit., Philadelphia, 1813, p. 15.

[27] Ibid., p. 31.

in the next to 5; in the next to 4; and finally, in the next twenty days, ending on the 30th of June, 1855, to scarcely more than 2."[1]

This result was achieved by physical changes effected by intelligent engineering.

Dr. Billings, in his work for the Tenth Census of the United States, estimates the death-rate of the whole country at about 18 per 1000. It cannot be questioned that a proper regulation of the universal conditions of human life throughout the whole country would reduce this rate to 12 per 1000; saving every year, on the basis of the present population, not fewer than 365,000 lives which are now sacrificed to neglected filth, with its attendant contamination of the soil on which we live, of the air we breathe, of the food we eat, and of the water we drink.

Disregarding for the moment the enormous loss of power and loss of heart, and the manifold suffering incident to the sickness these deaths imply, we are confronted with the stupendous and disgraceful fact that in these prosperous and intelligent United States, of which we boast as the home of the highest modern civilization, one thousand human beings are stricken to death every day, cruelly, needlessly, wickedly—solely because of the lack of that which it needs only intelligent direction to secure. We thus wantonly destroy every three years more lives than were sacrificed, directly and indirectly, by both North and South during the War of the Rebellion. The sum now paid for pensions during three years, if intelligently administered, would cover the improvements required to prevent these deaths.

The epidemic of yellow fever in 1878 aroused the active sympathies of the Nation, and even frightened Congress into an unwonted momentary activity in behalf of the life and health of the people. The deaths from that epidemic did not amount to more than 18,000. The lives wantonly sacrificed to preventable disease amount to that number every eighteen days.

The whole country now stands aghast at the fearful sacrifice of life caused by the bursting of the dam above Johnstown. Estimates of the actual loss are necessarily vague, but it is entirely safe to say that thrice each month, thirty-six times each year, as many persons die lingering and painful deaths, caused by a universal neglect on the part of the whole people that is no less culpable than was the neglect of those charged with the construction and care of the disastrous dam.

We stand, one and all, we and our wives and children, subject to an ever-present and entirely avoidable danger of a sort that every man, woman and child in every enlightened country has a just right to be protected against.

[1] The exact figures are 42.7, 31.5, 14.4, 10.7, 5.2, 4.3, 2.2. The average rate in military hospitals in England was 2.9.

Such protection it is quite within the power of the people themselves to secure, but the people themselves must secure it. All that we can do is to point out the way and to emphasize the necessity. The huge task is one whose doing can be compassed only by the force of an aroused public opinion; our task, hardly less huge, it must be to awaken and vivify that opinion.

What is to be done relates chiefly to the complete removal of the organic wastes of life before the beginning of putrefaction, and the ultimate disposal of these wastes, by methods now understood, in such a way as to reduce them to their elements without such contamination of earth, water or air as now reacts so fatally on the population. The process would be simple. Its seriousness arises only from the wide and universal dissemination of points needing attention, and from the enormous aggregate of cases to be treated. The adequate sanitary improvement would involve drainage and garbage removal, water supply, and some improvement of ventilation. By drainage, we mean, in this connection, the removal of filth in sufficient currents of water, and this is by far the most important thing to be done. Accumulations of filth not susceptible of removal in water must be removed in other ways or destroyed. While it is obviously necessary to bring water from a distance for the supply of those who live in large towns, village communities may safely rely on well-water, if only the water of the ground be protected against contamination, as it would be by the complete removal and proper disposal of organic wastes. So also, with the prevention of putrefaction in and about habitations, the need for costly artificial ventilation will be greatly reduced. The freedom with which air passes not only through the imperfections of our buildings, but through the very walls of our houses, is shown to suffice for the favoring of health and longevity, by the great number of aged and robust persons habitually living in an atmosphere that would seem intolerable to one accustomed to better conditions. It is not to be understood that the most complete ventilation is not desirable, only that if all waste matters be properly removed and disposed of, and if the water supply be made pure, a reduction of the death-rate to 12 per 1000 might fairly be expected, even without such ventilation as any sanitarian would think desirable.

The foregoing announcement is based on no untried theory. We know by experience that under wholesome conditions of life a general death-rate of 12 to 1000 can be reached in towns, and that a lower rate is possible in the country. We know that where organic refuse, including that which is voided from our persons, is completely removed without the possibility of fouling the surface or the interior spaces of the soil, without the possibility of contaminating our supplies

of water and food, and without the possibility of sending the gaseous products of its putrefaction into the atmosphere that we breathe, the conditions requisite for the maintenance of the zymotic diseases are substantially annihilated, and a great cause of *malaise*, debility and suffering is averted. If the improvement includes, as it often will in an incidental way, the correction of hygrometric conditions tending to the production of malaria, the relief will be greatly magnified.

It may, therefore, safely be asserted, in the light of what we know of improvements that have been effected by simple changes of physical conditions, that a proper application of the sanitary arts of the engineer would of itself suffice to save to us the thousand daily lives now thrown away, and to multiply greatly the happiness and efficiency of myriads whose sickness, though not mortal, is grievously painful and incapacitating.

It is, of course, not to be understood that even the zymotic diseases, which are chiefly referred to in this paper, are to be withdrawn from the domain of the physician and entrusted to the unaided efforts of the engineer. The great advance in sanitary achievement in the past fifteen years has taken place not in the field, but in the laboratory; it is in your profession, not in ours, that the great wonders have been wrought.

It has long been considered that the rough measures of the drain builder and the water purveyor were effective in warding off much disease and death, but the knowledge under which our results have been achieved has been very largely of an empirical character. It was only when the biologist entered the arena that real knowledge of the subject began, and although the biologist is yet only at the portals of the vast temple of knowledge to which he has so lately found the key, he has gone far enough to indicate quite clearly the reasons for the success of sanitary engineering, and even to justify a conviction that he has, dimly perhaps, but surely, indicated a new way of escape from much of our existing physical suffering and death.

How many of our diseases are caused by the invasion of specific organisms we are far from knowing. We do know that some of them are so caused, and the study of the life history of pathogenic microbes has already indicated more than a possibility, not only that their invasion may be prevented by suitable measures, but also that after the invasion of our bodies they may be, by measures yet to be defined, rendered powerless to perform their appointed work of injury or destruction. It would indeed almost seem that the elixir, not perhaps of life but of health, will yet be shown to lie in the death potion of the microscopic invaders of our blood and tissues. Until this is definitely shown, and probably still more after it has been shown, your profession and ours must work hand in hand to stay the tide of destruction by which the community is not only menaced, but to which it is actually subject, and from which it is constantly suffering.

You need not now be detained for a discussion of the processes by which the great end in view may be accomplished. These are tolerably well known and are to become better known day by day. What is necessary is that you and not only you, but all of your professional brethren, and not only they, but all who are subject to their professional ministration and to their influence shall be made to know and to feel that this great calamity is upon us and has been upon us in constantly decreasing degree for all time, and that it lies within our power to hasten its decrease in the future until the conditions of life of this whole people shall have been made what they might be and should be.

The whole purpose of this paper is to impress upon you the commanding need for action—an action that shall bring modern sanitary conditions into conformity with modern civilization.

THE INFLUENCE OF MEDICAL JOURNALS ON THE MARCH OF SCIENCE.

Read before the American Medical Editors' Association at Newport.

BY T. D. CROTHERS, M.D.,
OF HARTFORD, CONN.

In January, 1889, there were published in this country and Canada, 142 journals which claimed to represent the science and art of medicine.

The influence these journals have on the march of medical science opens up a field of unusual interest.

The profession are every year depending more and more on medical journals for contemporaneous history, criticism, and guidance, and every year these journals are giving more accurate records of the movements of science, of the rise and fall of theories, of the evolutions and revolutions that follow along the line of medical scientific discovery.

The time has come when accurate conceptions and misconceptions of truth must seek a hearing through the press. Books are too slow, pamphlets are not read, the medical journals must present and defend the facts and theories continously and persistently. Any theory supported in books alone has little chance of attracting attention. No matter how absurd the theory may be, if it has an organ in the press, it will be heard. Hence, to-day, in the list of 142 journals we can trace a history of the empiric stage of science; we can see the superstition and credulity and the quackery which gathers about the birth of all truth; we can see the phsychological growth and conflict of truth and error, and realize that all these journals of all degrees and kinds are un-

consciously writing the history of the world's progress. We who are journalists, each hope that our work approximates to that ideal of absolute truth that we are striving after, above the levels of transient medical journalism, and along the very front lines of progress. The reality of our progress is in some degree realized by the constant appearance in the medical press of the latest discoveries and truths of medicine, and we feel that in some measure the march of science takes its shape and direction from our efforts. We who are the actors on this stage cannot fully realize our individual influence in the play, nor can we judge from the applause of the audience. We are too near each other, and our mental vision is too limited; but we can discern the imperfections of our work, and prompt each other from the wings. When some of our enthusiastic brothers find themselves overwhelmed with confusion by the discovery of having advocated some absurd theory, or defended some new remedy which proves to be inferior to cold water, we can cover his exit with silence and charity. But when some of our brothers are attacked with dogmatism and have delusions that they are the central orbs of all science, or that other strange fatal disease, and its opposite, icy conservatism and frothy freshness, we put on garments of mourning long before life is extinct.

Bowing on the stage, or lounging in the wings, gives us some clear views of human nature and science. The search for truth and the effort to present it, brings out all the stars, the tragedians, the comedians, the supporters, and the army of figure heads.

As evolutionary optimists, we can catch glimpses of a progressive movement ever onward, although in our work this march of science seems like a confused advance and retrograde alternately. The incessant revolutions of theories and practices casts a shadow over our dogmatism and boasted exact experience, making it clear that the great drama of which we are actors and historians is beyond our present comprehension. The influence of medical journalism on the march of science, is also beyond our present comprehension. We can only draw some outline facts and apparent conclusions of this influence from a general study of the journals which claim to represent the science of medicine to-day. Of the 142 journals which began the year, death has claimed a certain number, but recruits have promptly filled their places, and it is safe to say that there are no vacancies. But the long felt want is still urged. Journals come, and journals go, and the procession goes on.

Among the real scientific journals three distinct classes appear: The *general*, the *special*, and the *encyclopædic* journals.

The *general journals* aim to represent the entire field of medicine, to give papers and discussions covering every line of medical research. The claim of being practical and addressing themselves solely to the busy physician is often contradicted by the work. Such journals like the single volume text-books fail, because the subject has outgrown the limits they would place upon them. A single volume text-book on practice or surgery can only be an outline view, more or less imperfect. So a general journal which attempts to spread the entire field of medicine before its readers, must do so in outline, and fail in many respects. The journals of to-day cannot do what was possible a quarter of a century ago. The heavy quarterlies are fast disappearing, and even the monthly is losing ground. Our journals must come weekly, and not far away the medical dailies will appear.

The journals that are taken by the general profession to-day must come often, and bring theory and practical experience; they must in newspaper parlance "boil down" every thing, and discriminate between the facts and fancies of authors. The general journal of to-day fails when its pages are loaded down with minute descriptions of disease and the exact action of remedies on the organism. It fails when the editorials are acrimonious and dogmatic. It fails when it dwindles into a newspaper of personal items and gossip, and apes the secular papers in tone and character. It fails when it assumes that medical science has advanced to the frontiers of positive truth in any direction. When the ideal general journal comes for the mass of physicians, it will be a weekly and daily.

It will be strictly impersonal and reflect the conclusions and results of scientific study up to the present.

It will avoid the ranks of dogmatism and credulity, and follow a line of frank conservatism towards all science. It will aim to find not the practical alone, but the literal roads for the discovery of the probable facts and laws of science.

The ideal journal will arouse and stimulate further inquiry, and the reader will never be satisfied with the conclusions which it presents. The ideal journal will be an outline of what appear to be the best sustained facts concerning the problems of medicine. Such a journal must have concentrated power and force of editorial talent, to write the history of the medical advances truthfully and clearly to-day. Such work helps on the march of science and is growing more and more essential.

The *journals devoted* to *special fields* of medicine occupy a different position.

They give the observations of the picket-guards of science, the impression of men who follow up a special line of research. They make the first surveys of new countries, which of course are imperfect and lacking in many details.

The probable facts and their conclusions are

only tentative, and are given for the purpose of exciting inquiry and examination.

The specialists' journals are mapping out the topography of new countries, and making observations of its flora and fauna, which must be corrected by the armies of the rear, and more than all other journals do they influence the growth of science, and are in turn influenced by it. The multiplication of specialists' journals comes from the rapid widening of the fields of medical study; it shows clearly that the day for the general journal is drawing to a close; that like the single volume text-books, the science of medicine can no more be concentrated in one journal. In the twenty or more special journals that occupy the field in this country, this fact is more and more obvious.

From the smallest and most imperfect beginnings they are slowly and surely coming to "the front," and in the twentieth century the science of medicine will be studied in these journals. The specialist journals of to-day, with all their weakness and narrowness of work, are nearer and more influential in the real progress of science They push on the exploration, from the mountain tops into the valleys, and along the river bottoms and plains of science. They map out the field for minute and exhaustive study, and give the results of individual work as no other journal can. Such journals cannot exist alone commercial standards of value; they come in obedience to demands of a special audience; their readers are contemporarians, workers along the same lines of research. They can only live where science is most aggressive, most active and most advanced. The general journal is of the past, the special journal is of the future. The one is a survival, the other is an evolution. The great text-books on the different branches of medicine are more and more the outgrowth of the work of special journals, the condensation and elaboration of views that have appeared first in such journals. On the growth and development of special journals, many of the great problems of medical science will depend.

The last class of journals that are prominent are the cyclopædial journals. They essay to give condensed summaries of the progress in all departments of medicine. Many general journals combine this feature with their work.

The ideal journal, or book, that will give a fair view of the medical progress of to-day is yet to come.

The attempts in this field are more promising than real. The readers of this class of literature and journals are filled with conflicting emotions concerning the near approach of a medical millennium, and the disappearance of the good old facts of our fathers and the humiliating thought that all truth comes from over the sea. No true science in this American *Nazareth*. The ideal journal to occupy this field will be a great power in the evolutionary march. The ideal book giving a correct view of the progress is far beyond the journal or the special department in the journals.

These three distinct classes of journals appear either single or combined in all the medical papers that claim to represent the science.

Medical journals are slowly emerging from the stage of childhood, in which the personal views of its managers are more prominent and emphatic than facts of science; a stage in which the intense personality of certain men and colleges, or teachers, are fixed points about which all other truth must revolve. Every advance is judged from this point of view. Such journals resolve the science and art of medicine into fixed laws, that never change. They stand out in the great march as obstructive, like the Bourbon family, they never learn anything and never forget anything.

The *mutual admiration period* is *another phase* of the childhood of journalism. Journals of this class are passing away, and are very interesting psychological studies. The personal news items, and comments stage is another sign of youth in journalism. Sneering doubts, and fulsome endorsement of every new view of science are equally unscientific. We might go on and tabulate a long list of signs of youth and feebleness in the medical press, but a little higher view will show us that this is part of the natural history of the sudden birth of a small army of medical journals, who are each struggling to represent the whole or some part of this great ever-widening land of science.

Medical journals, like the science which it represents, are growths or evolutions from the lower to the higher, or devolutions from the lower still farther back. Medical advance is thoroughly revolutionary, and our best facts to-day disappear to-morrow, and give place to newer, wider views. Our journals ought to be histories of this restless change. Histories above all personal interest or motives, except to give the most probable facts and conclusions, sustained by all the evidence at our command.

As medical journalists we can never represent or influence science by allowing personal dogmatism or personal gossip criticism to appear in our work. We can never represent or influence science by endorsing an assumption that any one range of facts comprise the whole truth, or that the last and final truth is bound up in any theory. We can never represent or influence science by a partisan support or defence of any minute statement of disease or its exact laws, or the action of drugs on the system, or theories of physiology and psychology. *Medical journalism* to represent and influence science *must assume* the position of a judge, hear all the evidence, and then present

to its readers those facts which seem best supported by research, theory and experience. Medical journalism to represent and influence science *must discriminate between* the probable and the improbable, between the statements and theories of men, who trust to fancy or to inductive reasoning, must discriminate between facts that are apparent or assumed, and insist that the record of sciences to-day have some support from the facts of yesterday. If this cannot be, the record must have an assemblage of probable evidence, that shall give it position and recognition.

Medical journalism to represent and influence science can never be a newspaper or a transient journal of the hour. It must rise to the level of the great laws which govern the evolution and dissolution of humanity. The individuality of the discoverer is as nothing compared with his discoveries. The truths of science require a higher standard of representation than the follies and accidents of life. While the 142 journals in this country that claim to represent medicine are in many instances sad reflections of so-called science, yet the American medical press as a whole is full of hopeful promise. While the quarterlies are doomed, and the monthlies are becoming more and more uncertain, the weeklies are growing in freshness and vigor. A new era is dawning for journalism. Both authors and editors must give the readers the clearest, briefest facts and evidence to sustain them. The theories and opinions of the fathers in medicine have of themselves no longer any weight, unless they have a direct bearing on the present. Papers loaded down with authorities are becoming more and more pedantic and absurd. There are no absolute facts in medicine, everything is relative, and good only for the present.

The world is full of working problems, which, like steps on a ladder, are means for higher and wider views of truth. In journalism we get the first surveys, in books, the corrected conclusions, good only for this day and generation.

Medical journalism reflects more and more positively the true spirit of the march of science in this closing century; not the march of science in Germany, France or England, but the movement here in our own country, free from the blighting conservatism of the past, free from time-worn theories, and empiric conceptions that are moss-covered with age and respectability. Free to question every assumed fact, and demand the reasons for its existence.

Medical journalism in this country is growing stronger and more influential every year. We are gaining greater power with every advance, and realizing more clearly that medical science is an incessant search for truth, that widens with every step forward. Both as historians and explorers we are pressing on into the unknown, fully assured that greater facts and truths are yet to come from broad scientific work.

MEDICAL PROGRESS.

THE TREATMENT OF INSOMNIA.—In his concluding remarks in his paper on this subject (read in the Society of Internal Medicine), IASTROWITZ, of Berlin, considers the following remedial applications: *Alcohol* may be employed in the form of beer, wine, cognac, etc., and it may be used especially in cases where the other soporific remedies would occasion considerable weakness of the heart. In patients subject to chronic insomnia alcohol should only be used in the light forms of psychical excitement, thus a few glasses of beer may be given at bedtime. Alcohol should be avoided in lypemania and hypochondria, because it increases the morning depression common in these cases.

Opium and morphine. I regard the alkaloids as the true soporifics, contrary to the general sentiment, which regards them as simply calming remedies. In spite of the useful action which antipyrin, phenacetin, etc., exert in pain, we cannot ignore the claims of morphine, which has also a tonic action. Thus sportsmen employ it to stimulate themselves, and inject it into their horses to increase their resistance to fatigue. The tonic action of morphine explains its use in the different states of morbid terror and in the insomnia of anæmic subjects. It must be cautiously administered in bronchitis, pneumonia and heart disease. In chronic insomnia it is contraindicated, for the morphine habit is much more difficult to combat than that of chloral, paraldehyde and sulphonal. In certain forms of insomnia—in the senile form, in those which depend upon an intestinal affection, and in chronic lypemania, opium acts better than morphine. Narceine in doses of 0.1 to 0.15 centigrams is a good soporific. Codeine in the same doses sometimes produces convulsions.

Chloral is unquestionably the most powerful soporific, but in large doses it lowers blood pressure considerably and paralyzes the heart. Chloral is our best remedy in delirium tremens and epilepsy. According to Liebreich it is contraindicated in diseases of the heart and hysteria. In my opinion it is also contraindicated in cases where there is considerable adhesion of the lungs, as well as in those cases where, after a dose of 4 grams, we do not find that excitement which is manifested in part by contraction of the pupils. In cases where it is active in small doses chloral may be employed to as good advantage in chronic insomnia as in the acute form. It is well to add a little morphine to the dose, for, by retarding the elimination of the chloral, it renders the action of the latter more permanent.

Paraldehyde does not weaken the heart, but when employed for a long time it manifests its close relation to alcohol by a chronic intoxication anal-

ogous to the grave forms of delirium tremens. Because of its disagreeable taste and its elimination by the lungs paraldehyde is contraindicated in bronchitis and dyspepsia. It is indicated in hysteria (because its taste *is* disagreeable), and in icterus accompanied with pruritus. It has also been recommended in cardiac stenosis and rejected in dilatation of the right heart and arterio-sclerosis. Paraldehyde acts very well in insomnia from emotional causes and in epileptic excitement, but its action is less favorable in the four conditions of psychical excitation and morbid fear.

Hydrate of amyl is a good soporific free from all danger. It sometimes exerts a bad influence on the stomach, however, and it is then necessary to give it by injection. It has been recommended in typhoid fever, in heart disease, as a remedy for cough (when paraldehyde is contraindicated), and as a soothing remedy in cholelithiasis.

Sulphonal enjoys the great advantage of being tasteless and inodorous, which allows its administration without the knowledge of recalcitrant patients. It exerts no influence upon the heart. In acute diseases its action is not sufficiently rapid and it has no influence upon pain. It is, however, an excellent remedy in the insomnia of motor origin, as, for example, in chorea and all forms of mania. I administer it often in small sedative doses during the day and at evening give a large soporific dose. The prolonged use of sulphonal produces a peculiar condition of weakness in the limbs, but unaccompanied by real ataxia. For this reason it is necessary to discontinue its use from time to time.

As regards the inconvenience, danger and intensity of their soporific action, the remedies of which I have spoken may be classified according to the following series: As regards their inconvenience and danger; morphine, chloral, hydrate of amyl, paraldehyde, sulphonal. As regards their efficacy; chloral, sulphonal, hydrate of amyl, paraldehyde, morphine.

Thus we see that *sulphonal* is the least dangerous of all, while at the same time it occupies the second place as regards soporific action.—*Gaz. Méd. de Liége*, July 18, 1889.

Abdominal Section for Relief of Intestinal Obstruction.—Prof. Obalinski, of Krakow, in his review of the history of intestinal obstruction, shows that, except for incarcerated hernia, surgical treatment is confined almost entirely to the present century and more particularly to the present decade. He has performed abdominal section in 38 cases of intestinal occlusion from almost every possible cause; of these 15, or 40 per cent., recovered, and excluding 7 hopeless cases, the recoveries would reach nearly 50 per cent. In about 50 per cent. the diagnosis, both as to location and character of obstruction, was proven to be accurate. He insists upon a consideration of the following points in the history of each case: 1, duration; 2, rapidity; 3, number of attacks; 4, predisposing disease; 5, direct cause, traumatic or otherwise; 6, amount of pain; 7, whether pregnant; 8, general condition of patient (whether exhausted or not); 9, form of abdomen—spherical form in obstruction of cœcal, square form, of lower end of colon; marked tympanitis indicates an acute, a slighter amount a chronic attack; 10, marked peristaltic action indicates a mechanical, absence of this a functional obstruction; 11, palpation, recognition of painful spot; 12, vomiting and absence of flatus indicate obstruction but do not locate it; 13, decrease in urine may indicate peritonitis; 14, manual examination of rectum is sometimes useful. With all of these aids a certain diagnosis is possible only in one-third of all cases. In the other two-thirds he advises an *early* exploratory, median incision. If the intestines are much distended they are taken out of the cavity, and in extreme cases a transverse incision is made into the gut, the contents carefully evacuated, the opening closed and the intestine replaced. Whenever possible the obstruction is removed; if not, an artificial anus is made above obstruction.—*Archiv für Klinische Chirurgie*, Vol. 38, Heft. 2.

A Case of Intestinal Obstruction and Gangrene.—Dr. W. A. Briggs, of Sacramento, reports a case of intestinal obstruction and gangrene. The patient applied for treatment on June 13, 1889, complaining of vomiting and paroxysmal pain. There was no abdominal distension and no tenderness on pressure. On the next day there was stercoraceous vomiting and abdominal pain. The patient had had a similar attack three weeks previously. On the 15th there was less pain, but a tumor had appeared in the right iliac region, accompanied by abdominal distension. On the same day a laparotomy was made. On opening the peritoneum turbid serum welled up and a gangrenous odor was manifested. The peritoneum was inflamed throughout. An elastic tumor of the size of an orange occupied what seemed to be the site of the cæcum; this was formed by a segment of small intestine constricted by adherent bands. A gangrenous segment of the intestine 8 inches in length was found and resected, when it was discovered that there was a second gangrenous tract 6 inches long, separated from the first gangrenous portion by 3 inches of healthy tissue. These two portions were accordingly included in the resection. The bowel was united by a double row of catgut sutures—continuous as regarded the mucous membrane, interrupted as regarded the peritoneum. The mesentery was brought together with interrupted sutures. Patient died in collapse two and one-half hours after the operation. The operator directs attention to the following points: 1. The ease with which death

might have been averted by timely operation. 2. The slight constitutional disturbance prior to actual gangrene. Three days after complete obstruction and two days after the supervention of stercoraceous vomiting, the patient traveled thirty-five miles, and the day after walked two miles. 3. Were the peritoneal bands causing the constriction of so recent origin as the attack three weeks prior to the final one?—*Occidental Medical Times.*

PHYSIOLOGICAL ACTION OF SACCHARIN.—PETSCHEK and ZERNER have conducted a series of experiments with saccharin with the object of studying its action upon the organism and its therapeutical effects. Their first investigations concerned its effects upon pytaline pepsin and the ferment of the pancreas. Saccharin in concentrated solution impedes the action of pytaline upon starch because of its acid reaction. If the the solution of saccharin be neutralized or if its soda salt be employed the conversion of starch into dextrine and glucose takes place as usual. The action of pepsin is not changed by saccharin, it is merely retarded when in place of using a combination of soda and saccharin the latter is employed alone. Saccharin in powder dissolves slowly and does not allow the pepsin to exert its digestive action until solution takes place. Experiments upon the living subject show that saccharin in doses of from 0.05 to 0.30 grm. exerts no influence upon digestion. In doses of from 0.50 to 1 grm. it retards digestion when taken pure; its soda salt, which is more soluble, may be taken even in doses of 5 grm. without disturbing digestion. The action of saccharin on pepsin is *nil* when its soda salt is used, while saccharin in substance exerts an unfavorable action, because of its acid reaction. Petschek and Zerner reach the conclusion that saccharin should not be employed except when combined with soda. As a substitute for sugar saccharin may be taken for a long time without impairing the appetite or the patient's well-being. Saccharin is eliminated by the urine, but not by the saliva.

From a therapeutic standpoint Petschek and Zerner have employed saccharin in 50 cases, in doses of from 0.1 to 10 grm. Its antipyretic action is almost *nil*, as estimated by the action of the pulse, respiration and transpiration. They have never observed the supervention of albuminuria after the administration of saccharin even in invalids predisposed to nephritis. The antizymotic action of saccharin is especially manifested in cases of abnormal intestinal fermentation. No specific action of the remedy has ever been noted in any disease. In cystitis saccharin exerts no influence. In two cases of *otitis media purulenta* which resisted the action of boric acid the otorrhœa was cured in a few days. The most decided successes have been witnessed in dyspepsia and gastric disorders produced by abnormal fermentation. In doses of from 0.3 to 1 grm. every two hours, combined with irrigation of the stomach, saccharin soon ameliorates all symptoms of fermentation, which however reappear as soon as its administration is suspended. In diabetes the employment of saccharin, together with a suitable regimen, is soon followed by a rapid diminution of the quantity of sugar in the urine. —*Gaz. Méd. de Liége*, July 18, 1889.

DIABETES MELLITUS AFTER EXTIRPATION OF THE PANCREAS.—J. v. MERING and O. MINKOWSKY have made, in the laboratory of the medical clinic in Strassburg, a number of experiments the results of which are given by them as follows: Diabetes mellitus occurs in dogs after extirpation of the pancreas. It begins some time after operation and continues for weeks, without interruption, until death. Besides sugar in the urine, there was polyuria, intense thirst, excessive appetite, acute emaciation and debility despite abundant nourishment.

A dog, whose pancreas had been removed, and which had eaten nothing for 48 hours, passed urine containing from 5 to 6 per cent. of sugar. Another dog 8 kilogr. in weight, which was given nothing but meat, passed almost one liter of urine containing from 5 to 6 per cent. of sugar, every day. After adding grape-sugar to the food the proportion increased temporarily to 13 per cent., by far the larger portion of the sugar added to the food being excreted unchanged. It may also be mentioned that the urine of the animals operated upon contained noticeable quantities of aceton.

The proportion of sugar in the blood is largely increased; in one case it amounted to 0.30 per cent., in another 0.46 per cent. Glycogen disappears from the organs; it could be found neither in the liver nor in the muscles of a dog that had been diabetically affected for four weeks and was killed while digesting meat.

The solar ganglion was not injured in the operation, the diabetes being a direct result of the extirpation of the pancreas. Transfusion of blood from a diabetic dog into the veins of a healthy animal did not cause sugar-excretion in the latter. Finally, in animals without pancreas the resorption of fat is greatly impeded, the utilization of the albumen also seeming to be very imperfect.—*Centralblatt für Klinische Medicin*, No. 23, 1889.

ENURESIS.—DR. RICHARDS recommends a combination of bromide of potassium and tincture of belladonna in nocturnal incontinence. He reports two immediate cures in boys of 12 years where the affection had lasted from infancy. Ten grains of the bromide and fifteen or 20 minims of the tincture were given at night.—*British Medical Journal*, June 22, 1889.

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SATURDAY, SEPTEMBER 7, 1889.

THE TREATMENT OF LOCOMOTOR ATAXIA BY SUSPENSION

Seven years have passed since Motchoutkowsky, of Odessa, after using Sayer's apparatus for the application of a plaster jacket to an ataxic patient suffering from Pott's disease, observed an improvement in the symptoms of his patient. Although he published, in the following year, the results of this treatment in sixteen cases of tabes, claiming favorable results in all but two, it was not until Charcot, in January of the present year, lent the weight of his authority to the method, that it attracted any general attention. Since then, observations have multiplied, and it may be considered the fashionable treatment. Although the status of any therapeutic measure in a disease of so protracted and irregular course can only be determined after much more prolonged observation than has been had in most of the cases thus far treated, the reported results have been, temporarily at least, so generally favorable, and the difficulty and risk of the treatment, under proper precautions, are so slight, that it would seem worthy of a general trial.

The only extensive statistics thus far published are those of Charcot, who had, in March, 1889, treated 114 cases of tabes by this method. Of these, sixty-four did not remain long enough under treatment to determine its effects. Of the remaining fifty, thirty-eight were decidedly benefited, seven unimproved, and in five cases, the effects were injurious.

In favorable cases, nearly all the troublesome symptoms of the disease are said to disappear, wholly or in part. Coördination, sensibility and sexual power improve; control over the bladder is regained; lightning pains cease. The patellar reaction does not seem to have been recovered in the reported cases, and the degree of improvement varies greatly. It is not usually noticeable until the eighth or tenth suspension, and may be delayed as late as the twentieth. The permanence of the improvement must, for the present, be considered uncertain, although one of Motchoutkowsky's patients is said to be able to take long walks five years after the cessation of treatment.

The rationale of the treatment is not very evident. Experiments have shown that in the cadaver, at least, the vertebral canal is sufficiently elongated to exert slight traction upon the spinal cord by the nerve-roots, but why this should be beneficial is not clear. Althaus suggests that it may be due to the breaking up of adhesions in the meninges and neuroglia. For the present, the method must be considered empirical rather than scientific.

In view of the fact that two persons who have attempted to conduct the treatment on their own persons have died from asphyxia, and that death has occurred, apparently as the result of suspension in two other cases where it was practiced without medical supervision, it would seem advisable that when undertaken it should be conducted by the physician, and begun with caution. Pulmonary, cardiac and vascular disease, great debility and anæmia are held to be contra-indications.

It is probably not well to be too sanguine in our hopes from this or any other treatment. The operation of nerve-stretching for the same affection is not quite forgotten, although it seems to have passed into "innocuous desuetude" and the inflation treatment of phthisis seems to have pretty thoroughly collapsed. If even temporary comfort can be given to any large proportion of the sufferers from this disease, it will be a great boon to both physician and patient, and, so far, mitigate what has been one of the opprobria of medicine.

MEDICAL PERIODICALS.—It has been ascertained that the principal medical periodicals of the world number 266; 174 are published in the United States and 92 in all other countries.

A NEW DISCOVERY.

The successful disposition of sewage is the question of all-absorbing interest in nearly every large city in the world. Nowhere, perhaps, has there been a greater need, nor has the subject received elsewhere more able and critical study than in the city of London. Up to the date of the last month the royal commission on metropolitan sewage discharge have been unable to report any feasible plan for the purification of sewage by precipitation.

A MR. WOLLHEIM, of London, now claims to have discovered a method by which this result may be successfully accomplished. He utilizes certain organic bases belonging to the group of ammonia compounds in combination with lime. As the result of chemical reactions, a gaseous reagent is evolved to which he gives the name of "amminol." It is a powerful disinfectant and, as stated in the London *Times*, when introduced into sewage rapidly extirpates all microörganisms capable of causing putrefaction or disease. When thoroughly intermixed with sewage the effect is almost instantaneous, the putrid odor of the sewage being at once replaced by that of the reagent. In thirty minutes the liquid portion of the sewage can be discharged deodorized and sterilized with perfect safety.

According to reports made by DR. KLEIN, F.R.S., the disinfection as well as the deodorizing is complete. He states that a sample of sewage examined by him contained 2,400,000 organisms in a cubic centimetre, and that the affluent after treatment was absolutely free from all or any organisms. Dr. Klein suggests that the effects of the treatment on specific microörganisms such as bacillus anthracis, the cholera comma bacillus, the typhoid bacillus, the pneumonia bacillus, should be ascertained. We shall watch with special interest for the verification of Dr. Klein's experiments. If this new discovery can be utilized successfully it may prove to be one of the most important achievements of the present age. And if its germicidal power can be utilized in the destruction of the microbes producing specific diseases its value may be beyond any possible estimate. Its claim to our confidence will be absolute when this is fully verified.

A FORLORN HOPE.

His experimental work in previous years had been such as to gain for the name of BROWN-SÉQUARD a prominent and permanent place in medical literature. In view of the reputation which he had thus worthily achieved, it is not singular that any views put forth by him should command immediate and critical attention. Again, he could hardly have struck a more responsive chord than when he gave assurance that the secret of perennial youth was at his command. If at last the dream of the poet and theme of the muse were to be realized, when age would be able at pleasure to take on its youth, what name or what claim could in a day command more world-wide attention. This alone is sufficient to account for the immediate and universal discussion of this question by pen and by press, by saints and by sinners alike.

But the possibility of immediate rejuvenation is so utterly at variance with all known laws, either biological or physiological, that we can only regard such a promulgation as the senseless vagary of one, enfeebled by age, and beyond question in present and pressing need of such rejuvenation. His utterances have seemed to us too absurd to warrant serious consideration in the columns of THE JOURNAL. For this reason we must decline to publish a score or more of letters, many of them witty and some of them wise, all bearing upon this same subject. We can by no means indulge this forlorn hope of life renewal.

In this connection we desire heartily to commend the forceful and timely utterances of the *Medical Record* in its issue of August 24, and the experimental study of the subject, as conducted by PROF. LOOMIS, and published in the same number of the *Record*, could hardly have been committed to better hands. But we confess to no little surprise that with such results as are there detailed Prof. Loomis should have reached such conclusions.

For the time, no doubt, the subject will command very general attention, and be seized upon by some as a stepping-stone to personal notoriety, and as a means of cheap advertising. For a time the victims of injudicious and unwarranted experimentation will suffer the penalties which are sure to follow, but later this theory also will be numbered with the delusions of the past, and the name of Brown-Séquard will hardly receive additional honor by reason of such connection.

BRAIN SURGERY.

Dr. Edmond Souchon, of New Orleans, has demonstrated by experiments on dogs a useful and, as it seems, a safe method of exploration of the brain for the purpose of locating pus cavities. To obviate the necessity of removing a large button of bone, as is usually done, by means of the ordinary trephine, he employs a watchmaker's drill, which makes an opening just large enough to admit a needle with a calibre about twice the size of an ordinary hypodermic syringe. This method permits one to make several tentative punctures with the infliction of comparatively little injury. In his experiments he made use of dogs, in which he found that four such operations of trephining and puncture, in a single animal, were unattended by noticeable effects. After the results of the first operations were obliterated the animals were kept at rest for two weeks, when the same operations were repeated, with similar results—no remote effects whatever being witnessed.

EDITORIAL NOTES.

HOME.

The American Association for the Advancement of Science is now in session at Toronto.

The American Academy of Medicine will hold its annual meeting at Chicago on the 17th and 18th inst.

The National Association of Dental Faculties at their recent meeting at Saratoga adopted the three-term course in all Colleges of the Association. This rule will go into effect after the session of 1891–2, and the terms not less than five months each.

Money for the Johns Hopkins University.—The will of John W. McCoy, recently admitted to probate, makes the Johns Hopkins University the residuary legatee and bequeaths to that institution $100,000. Mr. McCoy also leaves it his magnificent library, and gives to the Peabody Institute his collection of paintings. The rest of the estate, about $150,000, is divided up among literary friends.

A Correction.—We notice that a number of our contemporaries are publishing a statement to the effect that typhoid fever is epidemic in Chicago. It is simply a misapprehension of facts. The only fever that Chicago is troubled with just now is the World's Fair Fever! It seems to have spread already beyond the limits of ordinary sanitary control, and evidently Congressional legislation will alone be equal to the emergency. We hardly look for its subsidence before the close of 1892.

Surgeon Harvey E. Brown, U. S. A., died August 20, at Jackson Barracks, near New Orleans. He was a son of Gen. Harvey Brown, of the regular army, and born in New York. He graduated from the University medical department in 1858. He was surgeon of volunteers from 1861 to 1863, and then became Assistant Surgeon, U. S. A.; became full Surgeon and Major in 1881. He was the author of a valuable compilation and historical sketch of the Medical Department of the Army from 1775 to 1873. He was identified with nearly every epidemic in the Gulf District for twenty-five years. His final disease was lingering and painful, due to consumption.

Dr. Holmes at Four Score Years.—A despatch to the daily press says that Boston's typical son, Oliver Wendell Homes, celebrated his 80th birthday on the 29th ult., and despite its informal character the anniversary was a most charming one. He spent the days at his summer home at Beverly Farms. This is a quiet place, liberally embowed in vines and flowers, and most suited to such a festival. The flowers outside the house were nearly equaled by those within, the gifts of friends, which had been sent in the early morning. From nine o'clock throughout the day until night fall there was a continuous succession of visitors, mainly from the neighboring north shore estates. The doctor, seated in his comfortable library, with his attractions and alluring furnishings, received all his friends with a bright and pleasant smile and hearty cordiality. His surroundings added much to the charm of the occasion, the room being a genuine old-fashioned study of the kind our grandfathers loved, with a tall, quaint firescreen and open fireplace with its blazing logs resting on the ancient firedogs, whose polished brass standards reflected the careful housewife. The floor was covered with neat canton matting and a mammoth rug spread out before the fire. In one corner was a simple rolltop desk and in another a book-case

with the doctor's favorite authors convenient for ready access. The chief charm of the entire interior was its thorough homelikeness.

One of the many pleasant features of the day was the coming of the children. In the forenoon the boys and girls of Beverly Farms school to the number of twenty-six called in a body, and were given a most cordial reception, the doctor entering heartily into the feelings of his little friends, giving each a warm shake of the hand and his friendly smile. To each he presented a pretty bonbonnière filled with sweets, tied with a bright bit of ribbon, and bearing on its cover a miniature vignette of the poet, with his name beneath. The children of the neighborhood came in the afternoon, and the lovely, shaded roads and bypaths were filled with white clad little maidens going and coming. Besides flowers there were many other pretty souvenirs of the anniversary. Among them was a handsome cup, presented by lady friends of the doctor. It bore the following motto:

AUGUST, XXIX, MDCCCLXXXIX.
"'Tis the heart's current lends the cup its glow,
Whate'er the fountain whence the draught may flow."
—*Oliver Wendell Holmes.*
The pledge of friendship.

The cup is of silver, lined with gold. During the day letters of congratulation were received from J. G. Whittier, George William Curtis, Charles Eliot Norton, and a large number of others.

A NEW TRI-STATE MEDICAL ASSOCIATION.—The following call has been issued by Frank Trester Smith, M.D., Chattanooga, Tenn., Secretary of Committee: "The members of the medical profession in Alabama, Georgia and Tennessee are requested to meet in Chattanooga on the third Tuesday in October, for the purpose of forming a Tri-State Medical Association. All will be admitted to the meeting of the Association, but the membership will be restricted to graduates of regular medical colleges in good standing."

This call is signed by committees from Jackson County, Ala., Medical Society; Chattanooga, Tenn., Medical Society; Cleveland, Tenn., Medical Society; Cartersville, Ga., Medical Society; Dalton, Ga., Medical Society. It is hoped that there will be a general turnout of the profession. Papers of interest have been promised by prominent men.

This organization will be independent of all other societies. It will be an association of individual members of the Profession of Medicine, and will be managed in the interest of medical progress. The session will continue two days. Those desiring to read papers or exhibit specimens should notify the Secretary at an early date.

A circular will be issued in due time announcing the titles and authors of papers.

THE ONTARIO MEDICAL LIBRARY ASSOCIATION, at Toronto, is in its second year. It is energetic and ambitious. The cataloguing will be done on the plan of the Index catalogue of the Surgeon-General's Office at Washington. The trustees have established a bureau of nurses, and during the current year they expect to publish a complete physician's register for the city of Toronto.

DEATH FROM NICOTINE.—A case of excessive cigar smoking, followed by death, is given by Dr. B. W. Richardson in *Asclepiad* for May. A man, aged 35 years, of slight build, much worried by the cares of business, indulged in smoking almost continuously for twenty-four hours, and taking nothing but a little brandy and water. Within a period of twelve hours he smoked fourteen large strong cigars and forty cigarettes. He became prostrated, excited and tremulous, with loss of muscular power in lower extremities. At this point, the author was called in. Supporting treatment was ordered, but without avail; the loss of muscular power increased and extended to the upper part of body. Unconsciousness and convulsive symptoms set in and increased until the evening, when death took place by asphyxia, through accumulation of fluid in the bronchial passages. The author traces these conditions to nicotine poisoning. He concludes by stating that if he has to deal with another case of this nature, he will try the effects of transfusion.

DR. D. TILDEN BROWN.—The *New York World* of August 25, contains an interview with Dr. D. Tilden Brown, formerly at the head of the Bloomingdale Asylum, New York, who has been reported to have died in Europe. Dr. Brown is now farming and practicing in a limited field, a few miles distant from Chicago. There are a host of

former friends of Dr. Brown who will rejoice that he is alive and well, and that they need no longer speak of him as "the late Dr. Brown."

THE WATER SUPPLY OF PHILADELPHIA.—The *Philadelphia Inquirer* is responsible for the following: It states that it has caused a new investigation to be made concerning the alleged contamination of the Schuylkill River, which is one of the sources of the water supply of that city. It makes the statement that the river is "little better than an open sewer," since almost the whole distance from the coal mines to the Fairmount Waterworks may be found abundant agencies for pollution, in the unguarded admission of the drainage from hundreds and thousands of houses, farms and factories. The *Inquirer* makes an estimate that there is a population of not less than 250,000 persons, whose drainage more or less contributes to the fouling of the stream which gives drinking-water to a million of people. The onset of typhoid fever has been fully a month earlier than in most former years; there having been already reported more than 400 cases.

RUSH MONUMENT COMMITTEE.—We have received the following communication to which we invite the special attention of our readers: At the meeting of the Rush Monument Committee, held at Newport, R. I., on the 26th of June, last, Dr. D. C. Patterson, of Washington, D. C., was elected Treasurer, vice Dr. J. M. Toner, on nomination of the latter, who asked to be relieved of this portion of his duties as member of the Committee.

Notice is also given that the limitation of contributions having been removed sums of any amount will be received, and it is earnestly hoped that the enthusiastic and unanimous approval of the projected monument at the Newport meeting of the Association will find expression in prompt and liberal remittances, which should be addressed to DR. D. C. PATTERSON, *Treasurer*, 919 I St., N. W., Washington, D. C.

ALBERT L. GIHON, M.D., *Chairman*.
GEORGE H. ROHÉ, M.D., *Secretary*.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.—Our reader will bear in mind that the annual meeting of this Association will be held at Evansville, Ind., on the 10th, 11th, and 12th inst., and rates have been placed at a fare and a third on all the roads centering at that point.

FOREIGN.

PASTEUR is now a baron and Edison a count.

THE EMPEROR OF AUSTRIA is establishing sterilizing apparatus on a large scale for the gratuitous preparation of milk for the chidren of the poor.

COOKING BY ELECTRICITY.—The *Scientific American* says: The Hotel Bernina, at Samaden, has for some time been lighted with electricity, power being supplied by a waterfall. As during the day the power is not required for lighting, and is therefore running to waste, the proprietor of the hotel has hit upon the idea of utilizing the current for cooking when it is not required for lighting, and an experimental cooking apparatus has been constructed. This contains German silver resistance coils, which are brought to a red heat by the current, and it has been found possible to perform all the ordinary cooking operations in a range fitted with a series of such coils.

IN GREAT BRITAIN Dr. E. McDowell Cosgrove has been appointed physician to Mercer's Hospital, Dublin. There are upwards of 140 writers on the editorial staff of the *British Medical Journal*. The Prince of Wales is still suffering from a gouty affection of the leg. The citizens of Perth are agitated over a possible contamination of their water supply. Scarlet fever is prevalent in Birmingham.

DIET IN CASES OF FOREIGN BODY IN THE ALIMENTARY CANAL.—At a recent meeting of the Société Vaudoise de Médecine, Dr. Roux, of Lausanne, communicated the case of a woman who, having undergone Schoenborn's plastic operation on the soft palate (destroyed by syphilis), swallowed a curved needle fixed in the retro-pharyngeal flap. She was treated by feeding with potatoes alone, in large quantities, with the result that the foreign body was discharged with fæces on the third day, without having caused any unpleasant symptoms from the first to last.—*British Medical Journal*.

COMPULSORY NOTIFICATION.—Dr. A. C. Munro, in the London *Lancet*, presents data showing that in the little town of Jarrow, England, the system of compulsory notification has been the means of saving, during the last ten years, an average of eighty lives and 1,000 cases of sickness per annum.

TOPICS OF THE WEEK.

THE ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION. ENDORSEMENT OF THE BRITISH MEDICAL JOURNAL.

The recent meeting of our associated *confrères* across the Atlantic was a success, both in attendance and in the character of the work presented. The eminent gentlemen who were selected to prepare the addresses fulfilled their tasks admirably. We regret that our space does not permit us to publish these addresses in full, but we hope to be able from time to time to make such selections from them as will be of interest to our readers.

The financial statement of the Treasurer of the Association showed an increase in receipts of £3,105 over 1887, and an increased expenditure of £1,169. In view of the balance in hand for the year, amounting to £4,000, it was decided to send *The Journal* to the Colonies and India postage free.

Dr. Bridgwater, the President of the Council, in moving that the Report of the Council be adopted, eulogized the Editor and the General Manager for the able manner in which they had conducted *The Journal*, and replied to the critics in such a manner that the report was unanimously adopted.

Dr. Bridgwater also laid before the meeting a letter from Sir Joseph Lister on the conduct of *The Journal*, together with his reply thereto, and the resolution passed by the Council, as follows:

To the Council of the British Medical Association.

LONDON, AUGUST 1, 1889.

GENTLEMEN:—Many members of the Association have been much disappointed to find that the hopes which they had been led to entertain of an improvement in the conduct of *The Journal* have not been fulfilled. So strong is this feeling that a large number of men in influential positions in the profession, warmly attached to the Association, but jealous of its honor and despairing of seeing the improvement they desire, have expressed their determination to resign their membership.

But before carrying into effect a resolution so serious, it has been thought right to approach you, as the governing body, with the request that you will give this matter your earnest consideration, and take such steps as shall make *The Journal* in all respects worthy of the Association which it represents. We have the honor to be, gentlemen, your obedient servants,

(Signed) JOSEPH LISTER, Chairman,
W. H. ALLCHIN,
W. A. MEREDITH, } Secretaries.
JOHN WILLIAMS,

Reply of President of Council.

DEAR SIR:—I beg to acknowledge the receipt of your letter dated August 1. I will lay it before the Council when they meet in Leeds next week. I must be permitted, meanwhile, to assure you that you may safely leave the honor of the Association where it has been safely preserved for so many years. Yours faithfully,

(Signed) T. BRIDGWATER.

Resolved, "That the Council do not admit that the signatories of this letter are better judges than themselves, or more solicitous than they are for the honor of the Association and of the profession, but if there are any points which the signatories desire to particularize, in which they consider that *The Journal* admits of or calls for improvement, they will, as they ever have been, on receiving them through the Representatives of their Branches in the Council, be ready to give such suggestions their careful consideration."

Mr. Lawson Tait then moved the following resolution, which was carried with only one dissentient:

Resolved, That this meeting desires to express its satisfaction with the result of the present representative system of government of the British Medical Association, and their approval of the steps taken by the Council for the management of *The Journal*.

THE MENTAL HYGIENE OF PHYSICIANS.

In a presidential address delivered at the Medical Alumni Association of the University of Michigan, June 26, 1889, Dr. E. P. Hurd considered at length the subject of "The Mental Hygiene of Physicians." The address is able and eminently practical. At the expense of other matter we give space for its conclusions:

"If physicians would retain good mental health and intellectual vigor sufficient for the discharge of their varied duties in the best possible manner they should avoid:

"*First.* Overwork and the train of physical and mental symptoms which accompany it. To this end they should systematize their work, and as far as possible perform every duty at its proper hour. Office hours should be kept scrupulously; hours for meals, for sleep and for recreation should be as scrupulouly observed. If a call comes which destroys the rest for a single night the lost sleep should be made up as fully as the circumstances of the case will permit. Much of a physician's time is frittered away by duties and occupations which are foreign to his true work. Guard your time sedulously from needless interruptions. Work done amid constant interruptions is always performed at an increased expenditure of nervous energy. The mind works best in accustomed grooves. When your attention is claimed by half a dozen different topics in as many moments the transition from one to another is always accompanied by a mental wrench which is dentrimental to good work. Every physician should secure an annual vacation and relinquish toil altogether even if it is only for a single day.

"I am aware that plan we never so wisely overwork is sometimes inevitable, and an injurious strain upon the physical and mental forces is frequently unavoidable. The physician becomes sleepless, loses appetite, fails in strength, and shows other signs of exhaustion. Shall he at such a time spur on his jaded energies by stimulants or relieve his disagreeable sensations by narcotics? It were suicidal for him to do so. A stimulant or a narcotic may temporarily whip up the exhausted energies, but at the expense of more serious disaster later. The real remedies are rest and nutrition. Physicians should live well and avoid exhaustion by making a special study of foods and their effects upon themselves when suffering from exhaustion. A cup of cocoa, a glass of milk, a cup of bouillon, or coffee, will do as much as a stimulant, and more, because food is thus supplied in addition. The vexed question of tobacco has a bearing upon this point. If the narcotic it contains is promptly eliminated by the system and the indulgence leaves no unpleasant taste in the mouth, an occasional cigar or semi-occasional pipe may prove of benefit. For the sake of example let me suggest that smoking be done surreptitiously in the privacy of home or the sanctity of the inner office, far from the gaze of the curious, because in my judgment it cannot be denied that non-medical men who do not smoke

from such pure motives, but merely because they enjoy smoking and without any ulterior considerations of health are generally injuriously affected by the indulgence.

"*Second.* The social side of the physician's life should be cultivated. He should attend social gatherings, balls, picnics, lodges, churches, everything which will bring him into contact with his fellow men in a non-professional way. I know by experience how difficult it is for a physician to meet his fellows non-professionally. The hypochondriacal patient who desires an opportunity to talk over his symptoms gratuitously with a physician, the busybody who is so much gratified to have an opportunity to discuss the ailments of some one else and wring a prognosis, favorable or otherwise, from the family physician, the professional philanthropic who is sure to ask you what to do for half a dozen of his poor dependents—these and a hundred others conspire to rob the physician of any change of occupation even when he goes among his fellow men for social purposes. Do not hesitate to shake off these men. They are sponges not worthy of consideration and should not receive any. Dismiss them in the same category with the man who stops you in the street to inquire what is good for rheumatism or what he shall do for a cold. Many physicians finding their best efforts to meet the world socially, failures, by reason of unforeseen interruptions and untimely calls fall into the habit of accepting social deprivation as an inevitable lot. Do not yield thus, but make a diligent effort to break through the growing habit of indifference. Meet your friends and neighbors socially as often as you can.

"*Third.* Avoid the danger of looking wholly at the material side of vital phenomena. Human life is not solely the result of organization and cannot be explained satisfactorily from a consideration of its constitutional atoms. Vital growth, vital-action, the beginning of life, the onset of death, all imply something that is beyond mere material organization. From the standpoint of many physicians, as far as material organization is concerned there is little or no appreciable distinction between a Washington or a Lincoln or a Benedict Arnold. There were, however, hidden spiritual forces in the material organization of the former which rendered them a blessing to the world, and in the other a lack of it which has made the name odious. There is something in each man above, beyond, and higher than his physical organization. If vitality were but the result of organization medicine ought to be an exact science. No one knows better than we do how unlike the chemical crucible or the retort the body of man is, and how uncertain its reactions are. Life is God-given—a spark from Deity. Such views enable our profession and give us new zeal in the discharge of duty.

"*Fourth.* The life of the true physician is a practical religion. It is full of self-sacrifice and zeal for the welfare of others. It is a perpetual sacrifice of inclination to duty. The welfare of the patient is the first consideration, the comfort of the physician the last. Little needs to be added to the ethical side of the true physician's character. There should be added to this, however, a belief in an over-ruling Providence personally interested in the affairs of men. This trust and confidence in the arrangement and disposition of human affairs by an all-wise Creator should be cultivated by every physician. Nothing is better calculated than such a belief to remove the unfortunate habit of worrying over the untoward results of disease. Death should not be looked upon as necessarily due to your neglect to do this or your failure to do that. 'Having done all' in his power to stay disease the physician should 'stand fast' in his own rectitude He knows he has done the best he can under the circumstances--possibly not the best that could have been done absolutely, but the best he could do with the knowledge he had when he proffered his advice, or gave the medicine, or treated the patient. Nothing helps so much in bearing such cares or responsibilities as a genuine trust in a Higher Power and an Over-ruling Providence.

"*Fifth.* Allied to this, and growing out of it, is the necessity of cultivating a cheerful, hopeful spirit for the physicians own good. The absolute necessity of such cheerfulness and hopefulness on the part of every physician in the sick-room is obvious. If 'Christian Science,' so-called, has met with any success, it is because of its constant inculcation of hopefulness upon the invalid. 'You are not sick.' 'You are well.' 'You only have a mistaken idea of sickness,' etc. Such are its formulæ, which often are unmeaning enough, and yet which appeal powerfully to a most potent agency in the treatment of disease. I did not, however, design to speak of this aspect of the matter as much as of the duty of cheerfulness for the physician's own good and for the preservation of his own mental health.

"*Sixth.* Occupation, professional and otherwise. Every physician should have some subject for special study—Some hobby if you chose to call it so—all absorbing in its character, into which he can retire and forget for the time being the cares and annoyances of his daily life. This should be some branch of medical study in which he is an original investigator or a special student. I recognize the fact that we do not all possess the required talent to make deductions from observations carefully collated and recorded, but all have the ability to do the latter and to gather and arrange scientific or medical facts for master minds to interpret. The effect of such individual investigation upon the physician who makes them will be inestimable. When thus engaged he has a kingdom of his own into which he can enter without fear of intrusion—a city of refuge from the world without. The influence of such special investigations upon the profession at large in promoting knowledge and unifying effort would be incalculable. There are numerous branches of medical knowledge where careful, painstaking, personal observations such as any practitioner can make no matter where he may practice, are required to give better indications for treatment. I refer to certain anomalous forms of fever which are nowhere adequately described in any text-books; the action of remedies, new or old, upon different organs of the body; the relations of certain eruptive fevers and the laws of their development; the causation of pneumonias by atmos-

pheric conditions; the phenomena of hypnotism, and the like. These are but samples of subjects concerning which every thoughtful physician can furnish original and valuable contributions to our stock of knowledge, provided he has formed the habit of observing accurately and recording carefully what he has seen. Beyond this, every physician should have a pursuit or study, wholly outside of medicine, to serve as a diversion and means of recreation. In choosing such pursuit, it should not be forgotten that the medical is one of the learned professions. Hence, the pursuit should be allied to medicine and calculated to increase one's zest for medical study or to throw side lights upon it. Botany, comparative anatomy, microscopy, photography, etching, drawing or sketching, meteorology, hygiene, natural history, modern languages, these are a few of the studies which many physicians are constantly pursuing. I have read with great interest, but recently, of the vigor and enthusiasm with which the lamented Douglass Houghton, the second professor appointed to a chair in this University—the first professor being the late Asa Gray, of Harvard—prosecuted the study of chemistry, botany, and geology, while pursuing the active practice of medicine in the city of Detroit. Such studies keep the mind active, and furnish diversion and needed recreation. They help to get our minds out of routine pursuits, and enlarge our ideas, and broaden our mental horizon. The intense man who is constantly applying himself to a single pursuit is much more likely to lose his mental health, than one whose energies have been diverted into several channels.

"*Seventh.* Avoid professional jealousies and heart-burnings. They come too often from the feeling that pecuniary returns are the proof of professional success, and from unworthy and ignoble views of the profession itself. Medicine should not be pursued as a trade—a simple means of livelihood, a stepping-stone to wealth, but as a learned profession, a true vocation, requiring the largest mental acumen, the keenest insight, the most rapid generalization, often from insufficient data, and the broadest mental grasp of any profession. The mission of the physician is not to make money, but to relieve suffering, to help Nature in her efforts after health, and to lay the foundation for the future Science of Medicine, which is surely coming. Every physician should comfort himself, amid doubts and discouragements, by the ancient motto, 'It belongs to all to deserve success, not to attain it.' All can deserve the character of a good physician, even if the emoluments of the profession are not theirs, and pecuniary success is uncertain. Professional jealousies and sharp competitions are unworthy the man who possesses this high ideal of his calling. The soured, disappointed, cynical, embittered physician has mistaken his calling.

"*Finally:* If we would retain good mental health, we must not lose faith in the future of our noble profession. The great advance in every department of medical science during the past twenty years, leads us to anticipate most encouraging developments in the near future. We are on the threshold of a new era. Nature is yielding her secrets to patient inquiry. Mystery is becoming certain knowledge and assured truth. The future of medicine is inspiring. The thought of it richly solaces us for temporary disappointments and seeming failures. Let us be content to be humble laborers in the erection of the great edifice of scientific truth and accurate knowledge, which is rising before us."—*Physician and Surgeon*, July, 1889.

GASTRIC ULCER.

Dr. Longfellow, of Cincinnati, gives in the *Lancet-Clinic* a formula which he has used in gastric ulcer with very satisfactory results:

℞

Liq. potass. arsenit.	ʒj
Tinct. opii deod.	ʒijss
Acid hydrocyanic, dil.	ʒjss
Aquæ destil. q. s. ad.	ʒiv

℥

Sig.—One teaspoonful every three hours, after taking milk.

Minute doses of cocaine have at times been indicated, and combined with the above, with the result of decided relief of pain. All starch and sugar foods are to be withheld.

Dr. Stepp, of Nuremberg, according to the *Lancet*, has employed chloroform internally with good effect. He prescribes it in the proportion of "15 grains in a 5-ounce bismuth mixture." He regards it as beneficial by reason of its disinfecting, astringent and stimulating properties.

SOCIETY PROCEEDINGS.

Medical Society of the District of Columbia.

Stated Meeting, February 20, 1889.

CHARLES E. HAGNER, M.D., PRESIDENT, IN THE CHAIR.

DR. D. S. LAMB presented

TWO SPECIMENS OF CHRONIC OSTEITIS.

In one case the right tibia is much enlarged by sclerosis, with a central abscess cavity; medullary cavity almost entirely obliterated. Abundant exostoses. From a colored man, aged 60, who died of chronic diarrhœa. The post-mortem examination showed some fatty degeneration of mitral valve and some atheroma of aorta; heart weighed 13 ozs. Liver congested. Spleen atrophied. Colon deeply ulcerated throughout. A few small cysts of kidneys. Prostate enlarged. No history of injury.

The second specimen showed sclerotic thickening of lower part of femur, with large exostoses (osteophytes). Upper part of corresponding tibia porous. Some ulceration and exostoses in knee-joint; and patella firmly anchylosed to front of femur. From colored man, aged 70, who had inflammation of knee-joint when 15 years old. When 62 years old abscesses formed

around the joint and were opened. He had also chronic ulcers of tibia.

DR. C. W. RICHARDSON read a paper on

AN INTERESTING TOXIC MANIFESTATION OF COCAINE.

The interesting case of cocaine toxæmia which I am about to narrate is for the purpose of calling the attention of many to a hitherto unheard of toxic manifestation of cocaine, and impress upon those who are already acquainted with this peculiar effect the possible danger which may arise from the incautious and somewhat careless manner with which this drug is frequently administered. Many of you are no doubt aware that cocaine is capable of unduly exciting the sexual passions; but few, probably, are aware of its capability, like ether, of exciting undoubted objective erotic manifestations.

During the month of October, 1888, it was my intention to operate upon a certain woman, in order to remove from the left nasal cavity a cartilaginous spur projecting from the septum, which was pressing upon the inferior turbinated body, giving rise to certain nervous phenomena and complete obstruction of that nasal cavity. The object of the operation was to restore the calibre of the passage and to prove the dependence of the nervous symptoms upon the existing deformity. She was a well-developed, well-nourished woman of 25; married; had had one child; large physique; handsome, modest and reserved. After explaining to her the nature of the operation and possible relief to be obtained she readily assented to its performance. On the day appointed she reported, being accompanied by a lady friend. Before operating my patient told me that she expected to be sick on the morrow, but did not wish to have the operation delayed unless necessary. In order to make the operation as painless as possible, experience having demonstrated the fact that cocaine applied locally has very little effect in rendering operations upon the septum painless, I concluded to administer hypodermically directly into the tissue to be removed a few minims of a 10 per cent. solution. Five minims of 10 per cent. is equivalent to one grain of the drug. After using the injection, for a moment, I gave no further heed to my patient, as I little anticipated the rather unpleasant results that followed my injection. My attention was suddenly attracted, and to my surprise, and the consternation of her companion, the patient began to manifest the most remarkable and decided evidence of erotic excitement. It is entirely unnecessary for me to give a résumé of her actions, facial and verbal expressions—her objective demonstrations were unmistakable. It required some time to bring her to even a moderate degree of quietness. As quickly as possible I removed her, with the assistance of her friend, from the chair on which she was sitting to a sofa. While reclining she made incoherent remarks; called frequently for her husband; and kept her head in almost constant motion. Afterwards she walked the floor, wrung her hands and gave other evidences of great excitement. She states that she had no unpleasant sensations in connection with the circulatory or respiratory system; no faintness, heaviness; or wakefulness. She retired on going home, and when I saw her, at eight in the evening, she was in a normal condition. A few days afterwards I attempted again the removal of the spur, being on this occasion assisted by Dr. H. B. Deale. In this attempt I used my cocaine, not only in a local manner, but sparingly. Even on this occasion she manifested unmistakable, but decidedly mild evidence of an erotic excitement, not sufficient however to cause any interference with the operation, which was completed, and attended with a most happy result. The case which I have just narrated aroused several interesting and pregnant thoughts with regard to the danger which may possibly arise from the administration of this agent.

1. The danger of forming the cocaine habit.
2. The danger arising from the uncertain action of this drug. Cocaine, like chloral, at times, acts out of all proportion to the amount used.
3. As cocaine is comparatively a new drug there exists the danger of causing new, unexpected and unpleasant symptoms.

The first two of my observations are so well recognized that it is hardly necessary to give them more than a passing notice. All who have used cocaine to any extent can recall cases in which they regret having used the agent, and have also demonstrated that small doses have produced toxic symptoms out of all proportion to the amount of drug administered. We certainly should be more cautious in administering the agent, and always impress upon patients the danger attending its too frequent use. One-half grain usually produces its full physiological action; one grain may be considered a maximum dose. There exists a strong tendency among most men after they have used a certain agent for a long time without producing any serious or unusual effect to become careless and reckless in its application. The above fact remains true whether we know little or much about its physiological action and toxicology. I had until last summer, although thoroughly conversant with the then knowledge of the drug, doubted very much some of the asserted facts in connection with its toxicology simply because I had used the drug freely and frequently without any unpleasant effects. My first alarming case occurred in a female member of my own family, who was remarkably susceptible to the action of the drug.

The case we have just narrated presents to us

another interesting phase in the physiological action of the drug, *i. e.*, the excitation of the sexual desires. I am not a pioneer in this field of investigation, as equally interesting cases have been reported by Sandré, of Vienna, Cunningham, of England, and others. While both of the above-mentioned investigators called attention to these interesting symptoms, they did not take into consideration the possible medico-legal aspect. By medico-legal aspect I mean the possible danger that might result to a physician's reputation in case of the excitation of erotic symptoms in a female patient should they be alone. The question now arises as to the danger being a probable one. Is the danger as great as in its congener ether? Is there any danger of this character in the use of ether?

The last question I shall answer first. Ether, as we all know, in certain rare cases produces erotic symptoms of a most decided character, and many cases are recorded where there are evidences of the occurrence of complete venereal orgasm. Du Bois states that a woman under his observation requested, while being etherized, an attendant to kiss her, and after returning to consciousness stated that she had dreamt of having cohabitated with her husband. I refer to the celebrated case of Com. vs. Beach[1] to illustrate the danger to reputation and liberty that has been caused by the occurrence of this symptom in the patient. This danger is so well recognized in the use of ether that no one would think of administering this anæsthetic to a female patient without the presence of witnesses.

Is the danger from this aspect as great as in the use of ether? We would at once answer this question in the negative. There exists a vast difference in the action of the two agents. In the one consciousness is destroyed, while in the other it is retained. The erotic symptoms produced in etherization occur during the stage of excitement, before there is a complete loss of consciousness, but there is a sufficient obtunding of the sensibilities as to cause the patient not to connect the relationship between cause and effect. In the eroticism produced by cocaine the patient is conscious—conscious of her surroundings and all that is occuring, although she may not be able to repress the feeling arising within her. In one case, supposing no attendant present, the patient remembers the dream, the sensations, and has no means of convincing herself that the physician has not taken advantage of her unconscious condition. In the other the patient, while experiencing the same sensations, is positively aware that nothing of that character occurred.

Is the danger a probable one? If all women were honest and non-hysterical we would certainly answer this question in the negative, but as such is not the case it is a danger to be thought of, though of an minimal nature. It is only necessary to suppose the occurrence of such symptoms in a hysterical woman, who, on her return home becomes mentally unstrung—remembering only her sensations—it would be almost impossible to convince her that liberties had not been taken; or the occurrence of the same symptoms in a designing woman, there is danger enough.

DR. J. FORD THOMPSON thought he had been very fortunate, as he had been giving cocaine to men, women and children since its introduction and had never seen any such result as that reported by Dr. Richarson. He used it almost every day on different parts of the anatomy, but had not seen such an effect. He would be more careful in future, especially when administering it to females. He had, however, seen unpleasant effects in other ways. He thought a 10 per cent. solution was too strong for hypodermatic use; 4 per cent. is better, and 2 per cent. hypodermically will generally suffice. He thought that it might be used more frequently in the extraction of teeth. The reason for its failure in dentistry, he thought, was because the gum around the tooth to be extracted is generally painted instead of injecting the solution into the gum.

He had frequently seen irritation and inflammation produced about the incisions in operations. The worst effect he had ever seen was in a case of circumcision, in which he injected into the prepuce a few minims of a 4 per cent. solution of the muriate of cocaine. The man fainted and vomited. After the operation he went home, and when Dr. T. saw him the following morning there was an extensive inflammation about the penis and scrotum, which he thought was erysipelatous. On the third day there was gangrene on the under side of the penis and scrotum. It was worse than any case of phlegmonous erysipelas he had seen, and in spite of the extensive sloughing it got well without contraction. It might be claimed that this case was due to septic instruments, but as he always attends to the cleansing of his instruments he was sure that they were aseptic. At that time he was accustomed to carry a solution of cocaine in little vials, which he now thought had undergone decomposition. Since then he had carried the tablets of cocaine and a vial of distilled water, and mixes the solution at the time of operation—and never uses what is left. He also takes the precaution of heating the needles of his syringe to a white heat before using them. He might be accused of being too careful, but since he has adopted this method he had not had an accident: there had been no failure to produce immediate effect; there had been no inflammation; and union of the wound had not been interfered with.

DR. BERMANN was accustomed to use cocaine

[1] Med. Jurisprudence and Toxicology, Reese, p. 559.

every day and was glad to hear the report of Dr. R.'s case, as he had never seen any such excitement produced by the drug. This case might be classed with those idiosyncrasies in which the patient is particularly susceptible to the action of the drug. We see such unusual toxic effects from atropin and other drugs. The near approach of the menses may have had some effect in this case. He thought a 10 per cent. solution was too strong for hypodermic use in such a case. If it had been applied locally it would have answered the purpose. He had used a 20 per cent. solution in post-nasal surfaces without bad effects. He obtained good effects from a 5 per cent. solution if he waited a little while, or it might be necessary to repeat it. One lady to whom he had applied a 5 per cent. solution on cotton complained of nausea. A man objected to its use because it made him feel unpleasant a whole day, but experienced no erotic excitement. The gangrene in Dr. Thompson's case may not have been caused by germs, but by the contraction of the blood-vessels, which always follows the use of cocaine. He had had no experience with the hypodermic use of the drug, as he had always obtained the desired effect from its local application. He had painted the mucous membrane of the naso-pharynx with a 5 per cent. solution and anæsthetized the part.

Dr. Murray was glad to hear Dr. Richardson's paper. It suggested the possibility of overdosing with cocaine, a possibility forcibly emphasized by the literature of the subject. Within a little more than two years after the introduction of cocaine as an anæsthetic Dr. Mattison, of Brooklyn, had collected and published the records of six fatal cases, and ninety in which poisoning to a greater or less extent had occurred. Cocaine seemed to be elective in its action, influencing different centers in individual cases. Dr. Schadle, of St. Paul, Minn., has reported two cases in which the sexual organs were affected; in one the patient's powers were stimulated and in the other impotence was induced. Mr. Mayo Robinson, of England, reports a case in which aphasia, lasting four hours, followed the application of cocaine for the removal of nasal polypus. The fatal case reported by Dr. Simms, of Philadelphia, showed the respiratory center to be most affected. He *thought cocaine dangerous* and agreed with Dr. Thompson that strong solutions should be avoided. He used cocaine as little as possible, had substituted electricity, using constant current, in cases in which he desired to relieve obstruction due to engorgement of the erectile tissue of turbinated bodies. It acted as quickly and nearly as efficiently as cocaine, and was valuable in such cases for its tonic action. Cocaine frequently applied he believed harmful to mucous membrane.

Dr. Thompson would call attention to the use of cocaine in tracheotomy. He had used it for this operation in two adults during the past two weeks. He introduced the solution hypodermatically along the line of the incision and there was no pain during the entire operation. This use will be still more important in children. During anæsthesia from ether and chloroform there is spasm of the glottis and the surgeon is compelled to hurry with the operation; but with the use of cocaine he can take his time. In neither of the two cases referred to was their hæmorrhage. Painting with cocaine is of little use in surgery. He had tried it in dilating the female urethra, but there was intense suffering. It may obtund the sensibility in mucous membranes but it is not always satisfactory in this use.

Dr. Richardson, in closing, said he did not consider 10 minims of a 10 per cent. solution too large a dose when we take into consideration that we were dealing with a patient in a normal condition. He had frequently operated upon the septum and always failed to produce complete anæsthesia by local application of the drug. He doubted the possibility of a 4, or even a 10 per cent. solution causing sufficient lowering of sensibility of this part to render operations painless; at least, such had not been his experience. It was only last Monday that he operated upon a young man of considerable courage, for a deflected septum. In order to render the operation painless he first painted the septum with a 5 per cent. solution of cocaine, and after a few moments tested it with a probe and found the mucous membrane quite sensitive. At the request of the patient, in whom he had used a 10 per cent. solution twice before, without unpleasant effect, he resorted to a solution of similar strength. Within a minute after painting the septum he noticed his patient become markedly pale, his hands were cold, pulse weak and rapid, and he complained of sickness and faintness—in other words, toxic effects. The patient was quickly restored. Even after the production of toxic symptoms the operation was excessively painful. This case also demonstrates the uncertainty of the action of the agent. We all know that the naso-pharynx is not as sensitive as other portions of the upper air-passages. Twice during the past month he had removed adenoid growths from this region—an operation occupying nearly half an hour—without the use of an anæsthetic. One of these was a boy of 15, the other a young lady of 22 years. Both suffered some pain, but, nevertheless, were capable of jesting during the operations.

Dr. I. Bermann read a paper on

THE POSSIBILITY OF LATENT SYPHILIS CAUSING INFECTION.

About sixteen months ago Mr. N. N. brought his wife to me for treatment for some throat trou-

ble, which had been existing for some time. One look at the lady's throat was sufficient to show me quite extensive ravages of syphilis. I at once took her husband into an adjoining room and put the question to him whether there was any possibility of her having been infected by him. This was denied. Under the circumstances, remembering that tuberculous lesions of these parts, in rare cases, can resemble very much those of her's, asked him whether any member of her family had died of consumption. This was confirmed by him very decidedly, so that I resolved, no special hurry being necessary, to leave the diagnosis for the present in suspense, until I had made a thorough examination of her chest and examined the sputum for bacilli. I gave her a disinfecting spray for the throat and nose, touched the ulcerations with lapis in substance, and waited for the developments which the microscope would afford us. Next day the sputum was brought, examined, and found to be free from bacilli. When they came again, which was after about three days, I took the gentleman aside and told him I had no doubt the disease was syphilis, and must be treated at once as such. He begged me to do exactly what I thought was proper, and I prescribed a 33 per cent. solution of iod. potass., of which 25 drops were to be taken three times a day, between meals, besides advising that the disinfecting spray should be continued and that she should come to see me every other day. I will here describe the nature of her lesions. Both tonsils were covered with ulcerations, another was on the pharyngeal wall, the arcus palate uvula was on the left partly destroyed, which the husband ascribed to the use of nitric acid, with which he had tried to cauterize it before coming to me. Rhinoscopic inspection showed extensive ulcerations in the post-nasal cavity, and the laryngoscope revealed a tumefaction over the right erythemoid cartilage, somewhat resembling a syphilacci. I found it necessary, in view of these lesions, to make a thorough general examination, which, however, furnished only negative results. There is no need of going into further details of the case, as I do not think that you will doubt the existence of syphilis. How the infection took place was a very interesting point to me, and I inquired of the husband, whom I had asked to call and see me alone, whether he had any lesion of doubtful character on his person, I was not satisfied with a negative answer, and asked permission to examine him. This was granted, and a thorough examination revealed nothing but a few infiltrated glands in the groin. The lady improved so rapidly that after a fortnight, apart from the destroyed portion of the soft palate, there could not be found a trace of anything resembling syphilitic lesions, and to this day, sixteen months since I first saw her, she has been not only absolutely free from all symptoms of syphilis, but her general health has improved to such an extent that I failed to recognize her when I saw her a few months ago on the street, she having grown quite stout.

Some months after the lady had been discharged by me, at least for the present, as cured, her husband came to consult me in regard to his health. He complained about some symptoms of catarrh, but especially about a feeling of lassitude and general debility, which seemed to make all work, both physical and mental, a great effort to him. He imagined also that he had some kidney trouble. I told him that his case interested me very much, but that before I could do anything for him he would have to answer me some questions. These questions I put and his answers are contained in the following history: Is 45 years old; father died when 70 years of age of morbus Addisoni. Mother living, nearly 80 years old. No brothers or sisters. About 18 years ago he was treated for syphilis—according to his description an Hunterian chancre, sine exanthemata—with biniodide of mercury, for some time. The chancre disappeared very quickly and no sequelæ, that he is aware of, followed. I will here state that after I had told him my views of the case he was perfectly willing to give me all information in his power, and was very candid in his answers. He was married in the summer of 1872, believing himself perfectly well and being assured to that effect by his physician. There are no children to the marriage, and only one miscarriage occurred after two months. None later, and his wife did not complain of sore throat until eight years afterwards. At no time had he any sore throat or ulcerations in his mouth or throat, nor anywhere else, as a repeated thorough inspection demonstrated also to me. At least I could not find any cicatrices which are so characteristic of syphilitic lesions. Of course my diagnosis in his case was latent syphilis, and as he was very much run down I put him for the beginning on syr. ferri iod., 10 gtts. three times daily. Under this medication he improved rapidly, gaining 20 pounds in about six weeks, and said he felt much better than he had for years. Of course I informed him that his case would require prolonged supervision and treatment, and last fall I submitted him to mercurial treatment with hypodermics of bichloride, as he was complaining of dolores ostocopi, followed afterward by kal. iod. for six weeks. He has been getting on very well under this treatment, but has had now and then infiltration of submaxillary lymphatic glands, also of the præauricular glands. Repeated inspection of larynx and pharynx at that time gave always negative results, and the infiltration of the glands disappeared very soon under application of tinc. iod. and kal. iod. given internally. He feels perfectly well and strong now, and makes the impression of being in perfect health. Whether

he will remain so is a question that only time can answer, and I am still keeping him under supervision.

The natural conclusions which this case seems to allow us to form as decidedly as can be done under the circumstances, seems to me, that an infection of syphilis can take place through an individual afflicted with latent syphilis, probably through seminal fluid or other secretions.

THE PRESIDENT: Did she cohabit with any other than her husband?

DR. BERMANN could not answer this question definitely. The only interesting point in the paper is whether a woman could be infected by her husband eight years after marriage and eleven years after he had been treated for the primary lesion of syphilis, without any manifestations of syphilis during this period?

DR. THOMPSON thought that if the woman caught the disease from her husband it must have been when she became pregnant. The semen is not directly contagious; the child gets it from the semen and the woman from the fœtus. The physiological fluid itself is not infectious.

DR. SMITH: Will a hypodermatic injection of the seminal fluid of a man suffering from syphilis produce the disease in an uninfected individual?

DR. THOMPSON thought not, but had never seen it tried. He did not think that the syphilitic bacillus was in either at this late date. He would also question the benefit of mercury at this time of the disease. If it were syphilis it was the tertiary form. Neumann divides his cases into three classes: in one he does not give any mercury; in the second he gives mild doses; and in the third he gives heroic doses. In the tertiary form of the disease hypodermatic injections of mercury would not be of much benefit. The children of parents with tertiary syphilis are not syphilitic, but have scrofula or struma. He did not believe in the presence of syphilitic bacilli in the tertiary form of the disease. There is no virus in the suppurative and later stages, and the fluids of the body are not inoculable.

DR. BUSEY: According to Dr. Bermann's statement the man has had syphilis for eleven years; three years after the primary chancre he had married, his wife became pregnant and aborted at the second month on account of syphilitic infection, and eight years afterwards syphilis became manifest. Is it possible for a man to have latent syphilis for eleven years before the development of secondary or tertiary manifestations? and a woman to become infected by her fœtus and not exhibit symptoms of the disease for eight years? From the history he would suppose that the woman contracted syphilis long after that miscarriage.

DR. BERMANN: The man had been treated for syphilis two years before his marriage; his wife miscarried at the second month of her married life; and eight years after she had syphilitic lesions of the soft palate. She did not contract the disease from anybody else; then the latent symptoms in the man produced the secondary symptoms in the wife.

DR. BUSEY: There were two remarkable coincidences which he was not quite willing to accept. It would seem that the only way for the woman to have become infected was through the pregnancy, and if that was so there would have been earlier manifestations of syphilis. He thought she contracted the disease subsequently. He doubted the duration of latent infection. He did not believe either the history of the man or of the woman. It must be demonstrated that a man could have a Hunterian chancre and then infect his wife eleven years after, before he could accept it.

DR. BERMANN: If the woman had had syphilis during this term of years more of the soft palate would have been destroyed. He was confident that she contracted it just before seeking his advice. Here we have a syphilitic husband constantly cohabiting with his wife, then why could not the latent disease take on fresh action and thereby cause infection in the wife?

(*To be concluded.*)

DOMESTIC CORRESPONDENCE.

LETTER FROM NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Dr. Janeway on the Diagnosis and Treatment of Basedow's Disease—Dr. J. Lewis Smith on Idiopathic Contractions, or Tetany in Infancy and early Childhood.

The last meeting of the New York County Medical Association for the present season was an unusually attractive one; valuable papers by Professors E. G. Janeway and J. Lewis Smith constituting the main features of scientific interest. Dr. Janeway's was on "The Diagnosis and Treatment of Basedow's Disease," and in it he said his object was not to include the whole range of this affection, but rather to present some points derived from his personal observations in a considerable number of cases which might be of practical service. When well developed and presenting all the marked features characteristic of it, exophthalmic goitre could be at once recognized by any tyro; but the case was very different in the incipiency of the disease, or when some of the characteristics were obscure. Thus, at the beginning the general state of the patient's health was not infrequently more apt to strike the physician than the distinctive features of Basedow's disease, and sometimes perhaps lead him to give a wrong name to the malady.

Of the three terms most commonly used to conceal the absence of definite knowledge regarding the disease present in more or less obscure cases: neurasthenia, malaria and lithæmia, the two former are occasionally applied to this disease. As regards the neurasthenia, the presence of nervous debility gave some ground for its use, while in other cases the patient not only grew weaker, but had a sense of heat, or even elevation of temperature; thus making the diagnosis of malaria plausible. The adoption of either of these terms, however, was of bad import for the patient; for the treatment appropriate to these conditions would not be successful in Basedow's disease. Dr. Janeway said he had known even a supposition of phthisis to exist, on account of the emaciation, loss of strength, and sense of warmth present, sometimes in connection with a cough due to an intercurrent cold or to congestion dependent upon enfeeblement of the heart. In such cases the goitre present might press on the larynx and trachea, causing congestion of these parts; while the enlarged heart was liable to cause some congestion of the lungs, and of itself produce some dulness. Moreover, from these causes a modification of the respiration occurred, and patients with advanced Basedow's disease had been thought to die of pulmonary tuberculosis when none was found at the post-mortem examination.

Each of the three factors of the disease, exophthalmus, goitre and palpitation, he went on to say, may be used as a designation of a disease, without having regard to the nature of the process. It is not uncommon for the exophthalmus to be overlooked by the patient and his friends, owing to its gradual supervention. Graefe's diagnostic rule, that the upper lid does not follow the eyeball, as in the normal state, in looking downwards, is not a certain criterion, for we may not find it in all cases where slight exophthalmus exists. Moreover, he had seen it present in one eye, and absent in the other. An experienced physician can often detect the exophthalmus where its presence has been hitherto unsuspected; and an excellent test is to ask old acquaintances who have not seen the patient for some time their conclusion in the matter. It is to be remembered, of course, however, that every case of exophthalmus is not dependent upon Basedow's disease.

The enlargement of the thyroid gland may deceive by its presence or mislead by its apparent absence. In the milder cases the slight growth or vascular engorgement of the thyroid (the patient in the meanwhile having grown thinner), may keep the neck of only normal fulness. Attention, however, to the condition of the circulation in the neck will serve to prevent misconception. Even when the thyroid is but little enlarged, the peculiar vascular turgescence, arterial thrill, and arterial and venous murmurs can be made out. When the thyroid is enlarged the thrill is particularly noticeable in the superior thyroid arteries; while when this is not the case, he has felt it rather in the carotids themselves. Basedow's disease has sometimes been mistaken for aneurism, on account of the enlargement, thrill and accompanying murmur; and this is particularly apt to be the case when the enlargement is predominantly on one side. An occasional case will present the difficulty of deciding whether the disease present is an illustration of parenchymatous goitre accompanied by palpitation or is really Basedow's disease.

The condition of the heart, Dr. Janeway said, may be misleading in several ways:

First. Basedow's disease may complicate organic heart disease of preëxistent date.

Second. At times it becomes difficult to determine whether a murmur of mitral insufficiency is due to an old lesion or is dependent upon muscular incompetence or relative insufficiency of the mitral valve. He has known hearts considerably enlarged as far as the left ventricle was concerned, and having well marked systolic murmurs audible posteriorly, yield under treatment to such a degree that the murmur disappeared and the heart returned to a nearly normal size. This constitutes one of the greatest liabilities in the way of diagnostic error in cases possessed of moderate goitre and exophthalmus, as the tendency is to consider the case one of incurable cardiac disease. In certain cases, to which he thinks sufficient attention has not been paid, the patient will suddenly fall or have his legs give way under him; but almost immediately will be able to resume the standing position or walk. The question of cerebral or spinal disease may be raised in connection with these; but the rapidity of the occurrence and of its disappearance disprove such a supposition. The cases in which he has met with it have been weakened by diarrhœa or vomiting, or as a result of the malnutrition accompanying the disease, and, under excitement or physical exertion, have had an extremely rapid heart action.

Third. As previously mentioned, the congestion of the lungs from the weakened heart may raise the question of phthisis.

Fourth. Cases are met with of palpitation without exophthalmus or goitre, but having, as far as the heart and the general condition are concerned, phenomena identical with those occurring in exophthalmic goitre. Such cases he has been accustomed to consider as allied to Basedow's disease.

As to the condition of the heart in this disease, his experience is that cases occur without any very marked enlargement, while others are met with in which, with an antecedent history of freedom from cardiac disease, hypertrophy with dilatation is produced by the Basedow's disease. Irritable vomiting is at times a distressing accompaniment of the disease, and may cause death.

The treatment, Dr. Janeway said, must have relation to the condition of the circulation, to the accompanying anæmia, and to any coexisting irregularity in the functions of the body, especially menstrual disorder. It must not be forgotten, however, that menstrual irregularity may be a result as well as a cause of the trouble. One of the most prominent features in the treatment consists in finding an agent which will quiet the rapidity of the heart's action, and his experience had led him to give up the use of digitalis for this purpose. Formerly he employed tincture of aconite to a considerable extent, and he has seen good results from it in cases where, but for the name of the disease, he would not have ventured to use it. As a rule, the best results have been from the continued use of small doses.

Of late, however, he has employed the tincture of strophanthus in doses of 5 minims three times a day, gradually increased if necessary. Of eight cases in which it was used, three have been lost sight of, while in two a cure has occurred; the only other remedy employed being iron. In one other, complicated with mitral insufficiency and considerable dilated hypertrophy of the left ventricle, there has been a cessation of the palpitation and a considerable improvement in the heart's condition. In the seventh case recovery occurred, but galvanism was also used. The eighth patient had such irritable vomiting that it was impossible to give the remedy, or even to administer much food, by the mouth, and she succumbed to the exhaustion of the disease and vomiting in a neighboring city, after she had passed from his immediate observation. On the whole, the results from strophanthus have been such as to convince him of its real utility in this disease. He has found it to succeed sometimes in cases where digitalis had failed, and he prefers it to aconite as less dangerous, particularly in cases where the heart is somewhat enfeebled. He tried spartein in two cases, but in neither of them did it prove of much service.

It is worthy of note that electricity, which has been highly lauded by some authorities, in this disease, has been of little value in his hands; and the same result was given by Dr. Alfred L. Carroll and others in the discussion of the paper. It was formerly Dr. Janeway's custom in all cases to advise galvanism, in conjunction with iron and some cardiac remedy; but he stated that he has not had a single case of cure where galvanism alone was used. The recent good results obtained by him from strophanthus and iron seem to render it probable that the benefit formerly noted when galvanism was resorted to was in reality due to the remedies used in conjunction with it. Personally, he has not used atropia, though he has seen cases in which it has been used, but without favorable result.

Rest, both physical and mental, is a necessary adjuvant in the treatment, as well as the avoidance of worry and emotional excitement. He thought it reasonable to suppose that the condition of the circulation in this disease tends to produce the restlessness, often associated with insomnia, met with in some cases; and in a certain proportion of these it will yield to the ordinary treatment of the disease. Sometimes additional remedies are required, and in one case he has used sulfonal with good results. Formerly choice had to be made of the bromides, morphia (or, preferably, codeia), and chloral, or the use of the bath or wet pack. Iron is not invariably necessary, but is usually indicated by the coexisting anæmia. Attention should be paid to the condition of the nutrition, as evidenced by the appetite and general feeling and by the weight of the body; and whenever this is at fault appropriate measures adopted for its improvement. In conclusion he said that confidence on the part of the physician that he can produce an amelioration in his condition is of decided benefit to the patient. Moreover, it has seemed to him that hospital and dispensary patients are less amenable to treatment than those in the better walks of life; for where fright or worry is a prominent factor in the production of the disease, as is often the case, it certainly does not add to the efficiency of the treatment to have the patient surrounded by the sick and dying.

An interesting discussion of the paper was participated in by Drs. Carroll, Hepburn, MacGregor, Oberndorfer and J. Lewis Smith, and by the President, Dr. C. S. Wood; and in closing it Dr. Janeway said that certain points had been brought up by some of the speakers which he had not touched upon in the paper. Thus, he had not referred to the pathology, for the reason that this was so extremely obscure. In some of the cases in which autopsies were made the cervical sympathetic had been found entirely normal, and this would certainly disprove the hypothesis that the lesion of Basedow's disease is located in this portion of the nervous system. More recent investigations would seem to show that the trouble originated, either directly or indirectly, in the medulla oblongata. As to the starting-point of the disease from a clinical point of view, it would not do to always attribute this to such a cause as fright or emotional excitement. In one of the cases mentioned in the paper, where the patient was a lawyer of distinction, there was no fright, no special anxiety, and no mental strain from overwork. In this instance a complete recovery followed the use of strophanthus and iron. It was a well established fact, however, that a good many of the cases do originate from fright, worry or emotional excitement; and hence the disease was more common in women than in men, though he had met with a considerable number of cases in males.

He thought it advisable to avoid, if possible, the use of such agents as opium, as sooner or later the nutrition would become affected by the drug; and it was of the highest importance that the nutrition should be maintained as perfectly as possible. He had met with cases in which strophanthus and other appropriate remedies produced no effect as long as the nutrition was impaired; but when this had become improved the distinctive features of the disease began to subside under their use. In neuralgias also, and all chronic nervous diseases, he disliked to use opium for the same reason. There were, however, certain cases of Basedow's disease attended with rapidity of the heart's action in which nothing acted so efficiently in controlling this symptom as opium; and the same was true in some cases of aneurism in the region of the neck.

Dr. J. Lewis Smith's paper was devoted to the subject of "Idiopathic Contractions, or Tetany, in Infancy and Early Childhood." Having given a *rêsumé* of the literature of the disease from the time it was first taken up by the French writers in 1831, he stated that the term tetany is applied to an affection which is characterized by tonic contraction of muscles, commonly those of the extremities, but sometimes also those of the face or trunk, produced by causes external to the nervous system, and usually of temporary duration. In tonic muscular contractions arising from disease of the brain, spinal cord, or their meninges, or of the nerves supplying the affected members, the contractions are not the malady itself, as in the case of tetany, but are merely symptoms of a disease located elsewhere.

Tetany may occur at any age, but is most frequent in infancy, in early childhood, and in early adult life. As a rule, there appears to be no hereditary predisposition to the disease, but the occasional occurrence of multiple cases of the disease in families would seem to show that there may perhaps sometimes be an inherited neuropathic tendency. Nearly all writers assign the most important place in the causation to diseases of the digestive apparatus. Thus, Trousseau states that in the cases coming under his observation diarrhœa was commonly present (many cases met with in 1854 following cholera); but in one instance the cause seemed to be obstinate constipation. Dr. Smith then related in detail a case of his own, occurring in an infant, in which constipation was the only assignable cause; after which he went on to say that Erb states that all forms of intestinal disease may cause tetany, but that it especially occurs after protracted and exhausting diarrhœa. Gowers also regards diarrhœa as the chief cause. There is no recorded instance in which lumbrici or ascarides caused the contractions; but Gowers alludes to three cases caused by tapeworms. Remarkable as it may seem, dentition *per se* is but seldom a cause of tetany; but in a case which Dr. Smith related, which he saw in consultation with Dr. Janeway, teething was regarded, after repeated and thorough examinations, as the chief cause of the trouble. The child was 20 months old, and the gums were found swollen and congested over the crowns of five advancing teeth, which appeared to be in nearly the same stage of development, and were evidently soon to protrude. The contractions continued for three weeks, by which time all, or nearly all, the imprisoned teeth had escaped; and after this there was never any return of the tetany. Speaking further of the etiology, he said that tetany is more liable to occur in those whose systems are enervated by preëxisting disease than in those who are robust. Billroth and Barthez, Erb, Gowers and others mention a number of febrile affections as a sequel of which it is liable to occur, and Gowers also states that in young children attacked by it indications of rachitis are rarely absent. Another recognized cause of tetany is exposure to cold, and hence it has been regarded by some as in reality a rheumatic affection. In infancy and early childhood, however, other causes are apparently much more common than taking cold.

Dr. Smith then gave the following clinical picture of the disease: Ordinarily tetany occurs without any marked premonitory symptoms, but in some instances it is preceded by pain in the head or spine, vomiting without any previous indigestion or gastric disturbance, and a general feeling of indisposition. Usually, in those old enough to express their sensations, it begins with tingling, burning, or other unusual sensory manifestations. The tonic contractions occur suddenly, and sometimes simultaneously in the upper and lower extremities. Rarely the contractions occur in the muscles of the upper extremities alone, or in the muscles of the trunk. At first a feeling of stiffness is experienced, and this is followed by the tonic contraction, with the fixation of the affected part in a state of persistent flexure or extension. As regards the upper extremities, the contraction of the thenar and hypothenar muscles usually causes hollowness of the palms of the hands; the first phalanges of the fingers are flexed, the second and third phalanges extended, and the thumb adducted and flexed. Usually the hand is slightly flexed, as is also the forearm. The muscles which move the arm commonly escape, but exceptionally there is adduction of the arm on the shoulder. The hand may be extended, instead of flexed, and all the points of the fingers extended; or they may all be flexed, and the first closed.

The thighs may be adducted or flexed, the foot extended, forming a talipes equinus, and the toes flexed. In cases of ordinary severity the contractions are limited to the muscles of the extremities, and are more marked and persistent in those which move the hands, feet, fingers and

toes than in other muscles; but in the severer cases the muscles of the trunk and head participate. Contraction of the abdominal muscles produces rigidity of the abdominal walls. Spasm of certain of the thoracic muscles occasionally occurs, causing dyspnœa, and even lividity; and in some of these cases of embarrassed respiration the diaphragm is probably involved. Opisthotonos, retention of urine, anteflexion of the neck from contraction of the sterno-mastoids, fixation of the jaws from spasm of the masseter, retraction of the angles of the mouth, stiffness of the tongue, and indistinct articulation, are occasional symptoms in severe cases.

The contractions render the affected muscles hard and unyielding, and the child cries from pain when attempts are made to straighten the limb. If the spasm be slight, some voluntary movement of the affected muscles is possible, though it is restrained and difficult; but in severe cases voluntary motion is impossible. Unless the attack is very mild, pain in the contracted muscles such as everyone experiences when a spasm occurs in the calf of the leg. It may occur in paroxysms, with distinct intermissions, or without interruption; and it may vary at different times, probably from some variation in the degree of spasm. Certain subjective symptoms, such as numbness and tingling, which sometimes occur in tetany, may continue during the intermissions. After some hours or days the rigidly contracted muscles relax and the disease disappears, except, perhaps, that a degree of stiffness remains. But the respite is usually of short duration. The spasms recur, and several successive recurrences and intermissions take place, running over weeks and months, before the disease is permanently cured. During the intervals in the contractions the affected nerves and muscles are in ordinary cases unduly excitable; so that sudden pressure or percussion causes some contraction. It was Trousseau who first noted that, as a rule, compression of the artery and nerve supplying the contracted muscles causes or increases the contraction. Dr. Smith said it was an interesting fact that in cases which he has observed the spasms did not cease in sleep, though perhaps the contraction of the muscles was not as great as when the patient was awake.

Gowers, Erb and others have noticed that the electrical excitability of the nerve which supplies the contracted muscles is increased; but occasionally in long-continued cases the muscles undergo a certain amount of atrophy, which is attended by diminished electrical irritability. When the contractions are strong œdema sometimes occurs, especially upon the dorsal surfaces of the hands, and Henoch attributes this to compression and consequent passive congestion of the veins. In some cases perspiration is sometimes noted, and an erythematous redness may appear over the affected muscles. Occasionally in acute attacks the temperature is moderately increased, but ordinarily it is normal.

The pathology of tetany, Dr. Smith said, was still involved in great obscurity, though it was supposed that the motor cells of the spinal cord and the axis cylinders are in some way affected. As to its diagnosis, the bilateral and symmetrical nature of the affection was a point of great importance, and the fact that certain groups of muscles on the two sides were affected enabled us to distinguish it from the muscular contractions due to central lesions of the nervous system. Moreover, the spasms in tetany, as had been seen, were as a rule attended with intermissions, and the nerves over the affected area were increased in sensitiveness, while spasms could be produced by compressing the latter; thus forming a further contrast to the symptoms present in muscular contractions produced by disease located in the nervous centers or in the nerve supplying the affected muscles. With regard to prognosis, he said that tetany, whether intermittent, remittent, or occurring with little daily variation, sometimes soon ceases, and does not return; while in other instances it does not cease altogether for months, although varying in severity at different times.

In speaking of the treatment Dr. Smith said that the cause or causes of the attack, so far as ascertained, should obviously receive prompt attention. The bromide of potassium is a most useful remedy, and it should be given in decided doses; 4 grs. every three hours being required for a child of from 18 months to 2 years of age. Chloral, Indian hemp, and chloroform by inhalation, are also of service in allaying the spasms. Chloroform is said at first to increase the spasms, but they cease when the patient is fully under its influence; though liable to return when the inhalation is discontinued. Hauber states that two cases which were not relieved by other treatment were soon cured by active massage practiced when the patients were under chloroform narcosis. Stimulating liniments containing chloroform, applied over the affected muscles, have also been found of benefit in some instances. In his remarks on the electrical treatment of tetany Gowers states that faradism is contraindicated, but that good results have sometimes been obtained from the voltaic current. When rachitis is present, cod-liver oil, lime, and syrup of the iodide of iron are rationally indicated; and since so many cases originate from gastro-intestinal disorders, it is important that the diet should always be bland, easily digested and nutritious. P. B. P.

ENGLISH authorities have concluded that dynamic cooling, if not the sole cause of rain, is at all events, the only cause of any importance, all other causes being either inoperative or relatively insignificant.

BOOK REVIEWS.

TRANSACTIONS OF THE SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION. Vol. I, Session of 1888. Caldwell Printing Co., Birmingham, Ala.

This is a well appearing volume containing some thirty papers. Asepsis in surgical procedures is emphasized by several essays, entitled, "Antiseptic Surgery in Country Practice," by J. M. Taylor, M.D.; "Practical Aseptic Surgery," by J. W. Long, M.D.; and "Aphorisms in Antiseptic Surgery and Gynecology," by F. T. Meriwether, M.D.

We notice that S. M. Hogan, M.D., in "Treatment of Strictures of the Urethra by Electrolysis," according to the method of Dr. Robert Newman, of New York, meets with gratifying success, further that J. D. S. Davis, M.D., has treated enlarged prostate by electrolysis, following also the teachings of Newman, whose electrode he uses. This is introduced, after first being lubricated with glycerine, never with oils, into the prostatic urethra. It is then made the cathode or negative pole for a current of from 5 to 10 milliampéres. This current may be continued from ten to fifteen minutes. The anode should be applied to the back or hips. It should be understood that while physically there may be no difference between a current of 55 milliampéres continued for five minutes and a current of 5 milliampéres for fifty-five minutes, there is in fact a great physiological and therapeutic difference. In the former a chemical galvano-cauterization would result, while in the latter a galvano-chemical absorption, which the author defines as a chemical decomposition, which borrows its immediate effects from the separated non-nitrogenous bodies, there generating warmth, relaxation, softening and absorption of tissue. This is the character of current to be used in enlarged prostate. The other electrolytic action, known as chemical galvano-cauterization arises from the decomposition of salts which set free acids at the positive and bases at the negative pole, and said acids or bases attacking the tissues in their vicinity, giving rise to a caustic action chemical in its nature. The author quotes Apostoli, who expresses it very clearly in the following words: "The effect of electrolysis is, therefore, entirely analytical, and prepares for the subsequent caustic action, which is rather synthetical."

MISCELLANY.

LETTERS RECEIVED.

Dr. A. M. Hayden, Evansville, Ind.; Dr. Chas. W. Fry, Bracken, Ind.; Dr. R. W. Ramsey, St. Thomas, Pa.; Dr. A. Blair Frazee, Eldbridge, N. Y.; Dr. H. R. Storer, Newport, R. I.; Dr. C. L. Ford, Wequetonsing, Mich.; Dr. W. S. Hall, Haverford College P. O., Pa.; Frank Kiernan & Co., New York; Dr. David S. Booth, Sparta, Ill., Dr. J. F. Kennedy, Des Moines, Ia.; Lea Bros. & Co., Philadelphia; Cincinnati Sanitarium, Cincinnati, O.; N. S. Niles, Boston; Geo. H. Hirsh, Ann Arbor, Mich.; Dr. G. W. Lowry, Hastings, Mich.; Dr. N. Senn, Milwaukee, Wis.; J. H. Bates, New York; Dr. Clayton Parkhill, Denver, Col.; Dr. W. E. Casselberry, Chicago; Dr. Jos. A. White, Richmond, Va.; Dr. Geo. Brown, Barre, Mass.; Dr. Laura Hulme, Worcester, Mass.; Dr. J. B. Vail, Lima, O.; Ward Bros., Jacksonville, Ill.; Dr. W. S. Swan, Harrisburg, Ill.; Dr. F. Tester Smith, Chattanooga, Tenn.; George Kiel, Philadelphia; Dr. Amos Sawyer, Hillsboro, Ill.; Dr. G. W. McCasky, Ft. Wayne, Ind.; Dr. George O. Mead, Newmarket, Eng.; Dr. Claude M. Ferro, Tracy, Minn.; Dr. R. J. Dunglison, Philadelphia; Dr. D. B. Wise, Mt. Eaton, O.; Dr. Walter Channing, Brookline, Mass.; Dr. J. M. Farrington, Binghamton, N. Y.; P. Blakiston & Co., Philadelphia; Dr. H. G. Chritzman, Welsh Run, Pa.; Dr. E. A. Cobleigh, Chattanooga, Tenn.; Dr. O. E. Abel, Winchester, Ind.; Dr. A. B. Judson, New York; Dr. Jno. G. Ames, Marblehead, Mass.; B. Glick, Kansas City, Mo.; Dr. J. M. Toner, Washington; W. H. Schieffelin & Co., New York; Drs. Allen & Ray, Philipsburg, Mont.; Dr. D. N. Skinner, Auburn, Me.; Dr. T. A. Renefeck, Newport, R. I.; The Racine Malleable & Wrought Iron Co., Racine, Wis.; W. W. Rokker, Springfield, Ill.; Dr. R. S. Sutton, Allegheny, Pa.; Dr. G. F. Cook, Oxford, O.; Dr. Daniel G. Lass, Rodney, Ia.

Official List of Changes in the Stations and Duties of Officers Serving in the Medical Department, U. S. Army, from August 24, 1889, to August 30, 1889.

By direction of the acting Secretary of War, Major William S. Tremaine, Surgeon, now on sick leave of absence at Buffalo, N. Y., will report in person to the commanding General Dept. of the Missouri for assignment to temporary duty at the post of Ft. Leavenworth, Kan. Par. 4, S. O. 198, A. G. O., August 27, 1889.

Major Benjamin F. Pope, Surgeon U. S. Army, is granted leave of absence for one month, with permission to apply through Division Hdqrs. for an extension of two months. Par. 7, S. O. 54, Dept. of Texas, August 17, 1889.

PROMOTIONS.

Capt. Washington Matthews, Asst. Surgeon, to be Surgeon with rank of Major, July 10, 1889, vice Town, promoted.

Asst. Surgeon Charles B. Ewing, July 5, 1889; Asst. Surgeon Walter D. McCaw, August 20, 1889—to be Asst. Surgeons with rank of Captain, after five years' service, in accordance with act of June 23, 1874.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine-Hospital Service, for the Two Weeks Ending August 24, 1889.

P. A. Surgeon J. H. White, granted leave of absence for thirty days, on account of wound. August 16, 1889.

Surgeon W. H. Long, to proceed to Gallipolis, Ohio, as inspector. August 7, 1889.

Asst. Surgeon A. W. Condict, detached from revenue bark "Chase" and ordered to Louisville, Ky., for temporary duty. August 19, 1889.

Asst. Surgeon J. F. Groenevelt, ordered to South Atlantic Quarantine Station for temporary duty. August 8, 1889.